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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
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Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
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Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
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Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
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Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
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Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
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Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
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Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
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Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
			165					170						175	
Val	Phe	Glu	Lys	Ile	Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro

	180		185		190										
Pro	Leu	Tyr	Tyr	Arg	Arg	Ala	His	Arg	Arg	Phe	Val	Thr	Lys	Lys	Ala
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Leu	Cys	Ile	Arg	Val	Phe	Gln	Glu	Thr	Gln	Lys	Leu	Lys	Lys	Arg	Arg
	210					215					220				
Arg	Ala	Leu	Lys	Ala	Ala	Ala	Ala	Ala	Gln	Lys	Gln	Ala	Lys	Arg	Arg
225					230					235				240	
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<210> 3851
 <211> 1183
 <212> DNA
 <213> Homo sapiens

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 420
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 780
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 1020
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 1080

actggacaac ctctctcccc aaatatgcct ccagattcac acataaacca caatggaaac
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 1183

<210> 3852
 <211> 323
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Gln Gly Gln Val Gln Arg Thr Glu Val Ala Arg Gly Arg Leu Glu
 50 55 60
 Lys Arg Asn Ser Asp Leu Leu Leu Val Asp Thr His Lys Lys Gln
 65 70 75 80
 Ile Asp Gln Lys Glu Ala Asp Tyr Gly Arg Leu Ser Ser Arg Leu Gln
 85 90 95
 Ala Arg Glu Gly Leu Gly Lys Arg Cys Glu Asp Asp Lys Val Lys Leu
 100 105 110
 Gln Asn Asn Ile Ser Tyr Gln Met Ala Asp Ile His His Leu Lys Glu
 115 120 125
 Gln Leu Ala Glu Leu Arg Gln Glu Phe Leu Arg Gln Glu Asp Gln Leu
 130 135 140
 Gln Asp Tyr Arg Lys Asn Asn Thr Tyr Leu Val Lys Arg Leu Glu Tyr
 145 150 155 160
 Glu Ser Phe Gln Cys Gly Gln Gln Met Lys Glu Leu Arg Ala Gln His
 165 170 175
 Glu Glu Asn Ile Lys Lys Leu Ala Asp Gln Phe Leu Glu Glu Gln Lys
 180 185 190
 Gln Glu Thr Gln Lys Ile Gln Ser Asn Asp Gly Lys Glu Leu Asp Ile
 195 200 205
 Asn Asn Gln Val Val Pro Lys Asn Ile Pro Lys Val Ala Glu Asn Val
 210 215 220
 Ala Asp Lys Asn Glu Glu Pro Ser Ser Asn His Ile Pro His Gly Lys
 225 230 235 240
 Glu Gln Ile Lys Arg Gly Gly Asp Ala Gly Met Pro Gly Ile Glu Glu
 245 250 255
 Asn Asp Leu Ala Lys Val Asp Asp Leu Pro Pro Ala Leu Arg Lys Pro
 260 265 270
 Pro Ile Ser Val Ser Gln His Glu Ser His Gln Ala Ile Ser His Leu
 275 280 285
 Pro Thr Gly Gln Pro Leu Ser Pro Asn Met Pro Pro Asp Ser His Ile
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 Asn His Asn Gly Asn Pro Gly Thr Ser Lys Gln Asn Pro Ser Ser Pro
 305 310 315 320
 Leu His Ala

<210> 3853
 <211> 375
 <212> DNA
 <213> Homo sapiens

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 atggacgaac gaaggactat taaactcagt gagtggtaca gaggatttgc tgactcagaa
 180
 cgcaaagtta ttcccatcat ttcaaaatgt ttggaaggaa tgattcttgc agcaaaatca
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<210> 3854
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 3854
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 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
 85 90 95
 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
 100 105 110
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 115 120 125

<210> 3855
 <211> 1377
 <212> DNA
 <213> Homo sapiens

<400> 3855
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cagaactgtg gctctggtgt ggttgggata gtggactatg gacctagacc caacaagagt
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 420
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 780
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 1020
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 1080
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 1200
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 1260
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

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			20					25						30	
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

		35					40					45					
Gly	Ile	Val	Asp	Tyr	Gly	Pro	Arg	Pro	Asn	Lys	Ser	Glu	Met	Trp	Asp		
	50					55					60						
Val	Phe	Cys	Tyr	Arg	Met	Lys	Asp	Val	Asn	Cys	Thr	Cys	Lys	Val	Gly		
65					70					75					80		
Tyr	Val	Gly	Asp	Gly	Phe	Ser	Cys	Ser	Gly	Asn	Leu	Leu	Gln	Val	Leu		
				85					90					95			
Met	Ser	Phe	Pro	Ser	Leu	Thr	Asn	Phe	Leu	Thr	Glu	Val	Leu	Ala	Tyr		
			100					105					110				
Ser	Asn	Ser	Ser	Ala	Arg	Gly	Arg	Ala	Phe	Leu	Glu	His	Leu	Thr	Asp		
			115				120					125					
Leu	Ser	Ile	Arg	Gly	Thr	Leu	Phe	Val	Pro	Gln	Asn	Ser	Gly	Leu	Gly		
	130					135					140						
Glu	Asn	Glu	Thr	Leu	Ser	Gly	Arg	Asp	Ile	Glu	His	His	Leu	Ala	Asn		
145					150					155					160		
Val	Ser	Met	Phe	Phe	Tyr	Asn	Asp	Leu	Val	Asn	Gly	Thr	Xaa	Pro	Ala		
				165					170					175			
Asn	Glu	Gly	Gly	Lys	Gln	Ala	Ala	His	His	Cys	Gln	Pro	Gly	Pro	Thr		
			180					185					190				
Xaa	Gln	Pro	Thr	Glu	Thr	Arg	Phe	Val	Asp	Gly	Arg	Ala	Ile	Leu	Gln		
		195					200					205					
Trp	Asp	Ile	Phe	Ala	Ser	Asn	Gly	Ile	Ile	His	Val	Ile	Ser	Arg	Pro		
	210					215					220						
Leu	Lys	Ala	Pro	Pro	Ala	Pro	Val	Thr	Leu	Thr	His	Thr	Gly	Leu	Gly		
225					230					235				240			
Ala	Gly	Ile	Phe	Phe	Ala	Ile	Ile	Leu	Val	Thr	Gly	Ala	Val	Ala	Leu		
				245					250					255			
Ala	Ala	Tyr	Ser	Tyr	Phe	Arg	Ile	Asn	Arg	Arg	Thr	Ile	Gly	Phe	Gln		
			260					265					270				
His	Phe	Glu	Ser	Glu	Glu	Asp	Ile	Asn	Val	Ala	Ala	Leu	Gly	Lys	Gln		
		275					280					285					
Gln	Pro	Glu	Asn	Ile	Ser	Asn	Pro	Leu	Tyr	Glu	Ser	Thr	Thr	Ser	Ala		
	290					295					300						
Pro	Pro	Glu	Pro	Ser	Tyr	Asp	Pro	Phe	Thr	Asp	Ser	Glu	Glu	Arg	Gln		
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<211> 797
<212> DNA
<213> Homo sapiens
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180
acagggacac ttgcgacgaa gactcgggtg ccggcgagtc ggaccgcata gacgatggca
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300
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<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

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			20					25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35				40					45				
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
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<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 180
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 240
 ggatccatac gttataagca ccgctacagt ggcaggacag ctttgcaaact gagccgagat
 300
 ctttctattc agcttccccg gcctgatcag aatgtgacaa gaagtogaag caagacttac
 360

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 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
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 540
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 1440
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<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

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		20					25					30			
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35				40					45				
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
	50				55					60					
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

65					70					75					80
Gly	Ser	Ile	Arg	Tyr	Lys	His	Arg	Tyr	Ser	Gly	Arg	Thr	Ala	Leu	Gln
				85					90					95	
Met	Ser	Arg	Asp	Leu	Ser	Ile	Gln	Leu	Pro	Arg	Pro	Asp	Gln	Asn	Val
			100					105					110		
Thr	Arg	Ser	Arg	Ser	Lys	Thr	Tyr	Pro	Lys	Arg	Ile	Ala	Gln	Thr	Gln
		115					120					125			
Pro	Ala	Glu	Ser	Asn	Thr	Ile	Ser	Arg	Ile	Thr	Ala	Asn	Met	Glu	Asn
	130					135					140				
Gly	Glu	Asn	Glu	Gly	Thr	Ile	Lys	Ile	Ile	Ala	Pro	Ser	Pro	Val	Lys
145					150					155					160
Ser	Phe	Lys	Lys	Ala	Lys	Asn	Glu	Asn	Ser	Pro	Asp	Thr	Gln	Arg	Ser
			165					170						175	
Lys	Ser	His	Ala	Pro	Trp	Glu	Glu	Asn	Gly	Pro	Gln	Ser	Gly	Leu	Tyr
		180						185					190		
Asn	Ser	Pro	Ser	Asp	Arg	Thr	Lys	Ser	Pro	Lys	Phe	Pro	Tyr	Thr	Arg
	195						200					205			
Arg	Arg	Asn	Pro	Ser	Cys	Gly	Ser	Asp	Asn	Asp	Ser	Val	Gln	Pro	Val
	210					215					220				
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225					230					235				240	
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			245						250					255	
Glu	Asn	Ser	Asn	Arg	Glu	His	Arg	Lys	Lys	Arg	Asn	Arg	Ile	Arg	Gln
		260						265					270		
Glu	Asn	Asp	Met	Val	Asp	Ser	Ala	Pro	Gln	Trp	Glu	Ala	Val	Leu	Arg
	275						280					285			
Arg	Gln	Lys	Glu	Lys	Asn	Gln	Ala	Asp	Pro	Asn	Asn	Arg	Arg	Ser	Arg
	290					295					300				
His	Arg	Ser	Arg	Ser	Arg	Ser	Pro	Asp	Ile	Gln	Ala	Lys	Glu	Glu	Leu
305					310					315					320
Trp	Lys	His	Ile	Gln	Lys	Glu	Leu	Val	Asp	Pro	Ser	Gly	Leu	Ser	Glu
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<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

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 180
 gccatcaagg tggtaggaccg gggcgagcg ccccggaact tcgtcaacaa gttcctgccc
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 cgagagctgt ccacctgctg gggcgtgcga ccccgacaca tcgtgcacgt cttcgagttc
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 atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg
 360

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 420
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 480
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 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
			20					25					30		
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
		35					40				45				
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
		50				55					60				
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65					70				75					80	
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
			85					90						95	
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
			100					105					110		
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
		115					120					125			
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
		130				135					140				
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145					150					155					160
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
			165					170						175	
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
		180						185					190		
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
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210															

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863

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 120
 agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cacgaggttc
 180
 ttctggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgagc
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
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 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
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Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
			20					25					30		
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
		35					40					45			
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55				60					
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65					70					75				80	
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
			85					90						95	
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
			100					105							

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 120
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 180
 tattctgaca cttgtttcat gcagccatac cagtcacaac tttaaatttt tagtcagact
 240
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 300
 tctctatatt acttcactac aactacagct ttcattcttc attacattac tttttctgag
 360

tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
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 480
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 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 120
 ctggacagtg caaagcgatc ggaggacagg gagaagggag ctctgattga ggagctctta
 180
 caggcaaaac aggatcttca agatctgctg attgccaaag aggagcaaga agacctcttg
 240
 agaaagcgag agcgtgaact caccgccttg aaggagccc tgaaagaaga ggtttccagc
 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggccttgagg
 360
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca
 420
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 480
 ctgcagggaa gaagcgaaga gctggagcgg agagttgctc agcttcaaag gcagatcgag
 540
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata
 600

cgacagttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc
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 720
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 1020
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 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

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Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
				20				25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
				35			40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
				50			55				60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65					70				75					80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
				85				90						95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
				100				105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
				115			120					125			
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
				130			135					140			
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145					150					155				160	
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
				165				170						175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
				180				185					190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
				195			200					205			
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
				210			215				220				
Glu	Asn	Glu	Leu	Glu	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln	
225					230				235					240	
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

[illegible]

<210> 3869

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3869

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180	tgatgcacac	acattccaga	aatgcagagg	tatgctgctg	ccacggggta	ggggg'gcggg
240	aggcggcctg	gcctcatggc	cgcagaccgt	gccccagccc	gggcctggca	ggtagctggc
300	cactgataaa	tgccactggg	atcctaggag	aagctgggga	ccatgcgtga	ggtagtgaag
360	gggaccatgg	tggatggcat	cctgggcact	ttgtagcttg	tctgagggaa	aggcctctgc
420	tgccatagaa	aagctggaca	catgtcacc	tggggccctg	acatcctaaa	atgccccact
480	gactaccagt	cactaggaga	aaggctctcg	gctatgccct	tcccagtgat	gcttgcccca
540	gagtgcactg	tcacaggtgg	gggacaggtt	tgctccagaa	accgtaggcc	tttcttgtct
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660	tctgtatata	aaatacctat	tattagctgg	agttgcacac	atgcaggacc	aggagagact
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900	gggccttctg	ggcctcagca	gctccagccc	actcctggcc	tggcaggcca	cctgccacc
960	caccacacca	tctgcctctg	gccccagtg	aagtcagaag	aggcaggagc	cccgaggct
1020	gtgagcctgg	cgcaggctcg	ctgacagcga	gcttctcctc	tgcctggtgg	tagagcggac

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 1226

<210> 3870
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 3870
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 20 25 30
 Leu Leu Gly Ser Gln Trp His Leu Ser Val Ala Ser Tyr Leu Pro Gly
 35 40 45
 Pro Gly Trp Gly Thr Val Cys Gly His Glu Ala Arg Pro Pro Pro Ala
 50 55 60
 Pro Leu Pro Arg Gly Ser Ser Ile Pro Leu His Phe Trp Asn Val Cys
 65 70 75 80
 Ala Ser Met Met Phe Val Tyr Leu Arg His Leu Lys Ile Tyr Phe Arg
 85 90 95
 Tyr Glu Gly Lys
 100

<210> 3871
 <211> 473
 <212> DNA
 <213> Homo sapiens

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 180
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 240
 aaaaaacata aggagagaga tcttaaacga ggtaaatacga gagaatcagt ggattcccga
 300
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 360
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 473

<210> 3872

<211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3872
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 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
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 Asp Leu
 65

<210> 3873
 <211> 869
 <212> DNA
 <213> Homo sapiens

<400> 3873
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 720
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 780
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<210> 3874

<211> 289
 <212> PRT
 <213> Homo sapiens

<400> 3874

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Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
          35           40           45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
          50           55           60
Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
65           70           75           80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
          85           90           95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
          100          105          110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
          115          120          125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
          130          135          140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145          150          155          160
Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
          165          170          175
Leu Ile Arg Leu Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
          180          185          190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
          195          200          205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
          210          215          220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225          230          235          240Glu Leu
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
          245          250          255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
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His Val Phe Val Val Glu Leu Leu Leu Leu His Gly Ala Ser Val Arg
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<210> 3875
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 <212> DNA
 <213> Homo sapiens

<400> 3875

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<212> DNA

<213> Homo sapiens

<400> 3877

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<212> PRT

<213> Homo sapiens

<400> 3878

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Gln	Thr	Thr	Phe	Glu	Ser	Gln	Asp	Arg	Lys	Ala	Val	Ser	Pro	Ser	Ser
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Lys Glu Ser Met Gly Lys Thr Ser Gly Lys Leu Phe Asp Ser Ser Asp					
225		230		235	240
Asp Glu Glu Ser Asp Ser Glu Asp Asp Ser Asn Arg Phe Lys Ile Lys					
	245		250		255
Pro Gln Phe Glu Gly Arg Ala Gly Gln Lys Leu Met Asp Leu Gln Ser					
	260		265		270
His Phe Gly Thr Asp Asp Arg Phe Arg Met Asp Ser Arg Phe Leu Glu					
	275		280		285
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<212> DNA

<213> Homo sapiens

<400> 3879

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<211> 116

<212> PRT

<213> Homo sapiens

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			20					25				30			
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
			35				40					45			
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
			50				55				60				
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
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Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
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Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
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<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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<212> PRT

<213> Homo sapiens

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<210> 3883

<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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<211> 199

<212> PRT

<213> Homo sapiens

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			20					25					30		
Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
		35					40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
		50					55					60			
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<211> 1671

<212> DNA

<213> Homo sapiens

<400> 3885

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<211> 277

<212> PRT

<213> Homo sapiens

<400> 3886

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Thr	Ala	Ala	Lys	Phe	Lys	Leu	Thr	Arg	His	Gln	Ala	Val	Thr	Gly	Ser
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Arg	Asp	Arg	Thr	Val	Lys	Glu	Trp	Asp	Leu	Gly	Arg	Ala	Tyr	Cys	Ser
			100					105					110		
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			115				120					125			
Pro	Tyr	His	His	Xaa	Ser	Gly	His	Asn	Asp	Gln	Lys	Ile	Arg	Phe	Trp
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Asp	Ser	Xaa	Gly	Gly	Pro	Thr	Ala	Pro	Arg	Ser	Ser	Leu	Xaa	Gln	Gly
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Arg	Val	Thr	Ser	Leu	Ser	Leu	Ser	Xaa	Arg	Pro	Thr	Xaa	His	Leu	Leu
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Ser	Cys	Ser	Arg	Asp	Asn	Thr	Leu	Lys	Val	Ile	Asp	Leu	Arg	Val	Ser
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Asn	Ile	Arg	Gln	Val	Phe	Arg	Ala	Asp	Gly	Phe	Lys	Cys	Gly	Ser	Asp
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Trp	Thr	Lys	Ala	Val	Phe	Ser	Pro	Asp	Arg	Ser	Tyr	Ala	Leu	Ala	Gly
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<210> 3887

<211> 5612

<212> DNA

<213> Homo sapiens

<400> 3887

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<210> 3888

<211> 1230

<212> PRT

<213> Homo sapiens

<400> 3888

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			20					25					30		
Glu	Leu	Gln	Lys	Asp	Ser	Ile	Lys	Leu	Asp	Asp	Asp	Ser	Glu	Arg	Lys
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Val	Val	Lys	Met	Ile	Leu	Lys	Leu	Leu	Glu	Asp	Lys	Asn	Gly	Glu	Val
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Gln	Asn	Leu	Ala	Val	Lys	Cys	Leu	Gly	Pro	Leu	Val	Ser	Lys	Val	Lys
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Glu	Tyr	Gln	Val	Glu	Thr	Ile	Val	Asp	Thr	Leu	Cys	Thr	Asn	Met	Leu
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Ser	Asp	Lys	Glu	Gln	Leu	Arg	Asp	Ile	Ser	Ser	Ile	Gly	Leu	Lys	Thr
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Lys	Arg	Thr	Ile	Ile	Ala	Leu	Gly	His	Leu	Val	Met	Ser	Cys	Gly	Asn	
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645	650	655
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Ala Leu Asp Ile Leu Ile	Lys Asn Tyr Ser Asp Ser	Leu Thr Ala Ala
675	680	685
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Asp Met His Val Ser Gln	Met Ala Ile Ser Phe Leu	Thr Thr Leu Ala
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740	745	750
Ser Ala Met Leu Asp Phe	Phe Gln Ala Leu Val Val	Thr Gly Thr Asn
755	760	765
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Ser Gln Ser Thr Ala Leu	Thr His Lys Gln Ser Tyr	Tyr Ser Ile Ala
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Val Val Gly Gln Phe Ile	Gln Asp Val Lys Asn Ser	Arg Ser Thr Asp
820	825	830
Ser Ile Arg Leu Leu Ala	Leu Leu Ser Leu Gly Glu	Val Gly His His
835	840	845
Ile Asp Leu Ser Gly Gln	Leu Glu Leu Lys Ser Val	Ile Leu Glu Ala
850	855	860
Phe Ser Ser Pro Ser Glu	Glu Val Lys Ser Ala Ala	Ser Tyr Ala Leu
865	870	875
Gly Ser Ile Ser Val Gly	Asn Leu Pro Glu Tyr Leu	Pro Phe Val Leu
885	890	895
Gln Glu Ile Thr Ser Gln	Pro Lys Arg Gln Tyr Leu	Leu Leu His Ser
900	905	910
Leu Lys Glu Ile Ile Ser	Ser Ala Ser Val Val Gly	Leu Lys Pro Tyr
915	920	925
Val Glu Asn Ile Trp Ala	Leu Leu Lys His Cys Glu	Cys Ala Glu
930	935	940
Glu Gly Thr Arg Asn Val	Ala Glu Cys Leu Gly Lys	Leu Thr Leu
945	950	955
Ile Asp Pro Glu Thr Leu	Pro Arg Leu Lys Gly Tyr	Leu Ile Ser
965	970	975
Gly Ser Ser Tyr Ala Arg	Ser Ser Val Val Thr Ala	Val Lys Phe Thr
980	985	990
Ile Ser Asp His Pro Gln	Pro Ile Asp Pro Leu Leu	Lys Asn Cys Ile
995	1000	1005
Gly Asp Phe Leu Lys Thr	Leu Glu Asp Pro Asp Leu	Asn Val Arg Arg
1010	1015	1020
Val Ala Leu Val Thr Phe	Asn Ser Ala Ala His	Asn Lys Pro Ser Leu

1025		1030		1035		1040
Ile Arg Asp Leu Leu Asp Thr Val Leu Pro His Leu Tyr Asn Glu Thr						
	1045		1050		1055	
Lys Val Arg Lys Glu Leu Ile Arg Glu Val Glu Met Gly Pro Phe Lys						
	1060		1065		1070	
His Thr Val Asp Asp Gly Leu Asp Ile Arg Lys Ala Ala Phe Glu Cys						
	1075		1080		1085	
Met Tyr Thr Leu Leu Asp Ser Cys Leu Asp Arg Leu Asp Ile Phe Glu						
	1090		1095		1100	
Phe Leu Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Lys						
1105	1110		1115		1120	
Met Leu Thr Phe Leu Met Leu Val Arg Leu Ser Thr Leu Cys Pro Ser						
	1125		1130		1135	
Ala Val Leu Gln Arg Leu Asp Arg Leu Val Glu Pro Leu Arg Ala Thr						
	1140		1145		1150	
Cys Thr Thr Lys Val Lys Ala Asn Ser Val Lys Gln Glu Phe Glu Lys						
	1155		1160		1165	
Gln Asp Glu Leu Lys Arg Ser Ala Met Arg Ala Val Ala Ala Leu Leu						
	1170		1175		1180	
Thr Ile Pro Glu Ala Glu Lys Ser Pro Leu Met Ser Glu Phe Gln Ser						
1185	1190		1195		1200	
Gln Ile Ser Ser Asn Pro Glu Leu Ala Ala Ile Phe Glu Ser Ile Gln						
	1205		1210		1215	
Lys Asp Ser Ser Ser Thr Asn Leu Glu Ser Met Asp Thr Ser						
	1220		1225		1230	

<210> 3889

<211> 556

<212> DNA

<213> Homo sapiens

<400> 3889

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60

ccagtctga cggatgagca ggtcccgaat ccaggccatg aagcccatga ccaaggagga
120

tgggatgccc ggcagagcat catccgcaag gtggtggacc ctgagacggg gcgcaccagg
180

cttattaagg gagatggcga ggtcctagag gaaatcgtaa ccaaagaacg acacagagag
240

atcaacaagc aagccacccg aggggactgc ctggccttcc agatgcgagc tgggttgctt
300

ccctgagggc ccccgctggc caaggcctgt ggacgacgct ggcggcccag cctgggcagg
360

tttcaggggtg ccagtgggaa gcctgatggg tgctggtggc ctttcccccg tggattggtc
420

tctggcccag ccagttctct tctcaggggc aggggggtgga ggttggggtc accggcctgc
480

ttggcacccc catctgaaag agcagcactt ctcagctatt aaaggcccc tggatagaca
540

aaaaaaaaaa aaaaaa

556

<210> 3890

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 3890

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Ala Leu Pro Gly Pro Ser Leu Asp Gln Trp His Arg Ser Ala Gly Glu
 1             5             10             15
Glu Glu Asp Gly Pro Val Leu Thr Asp Glu Gln Val Pro Asn Pro Gly
      20             25             30
His Glu Ala His Asp Gln Gly Gly Trp Asp Ala Arg Gln Ser Ile Ile
      35             40             45
Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr Arg Leu Ile Lys Gly
      50             55             60
Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys Glu Arg His Arg Glu
65             70             75             80
Ile Asn Lys Gln Ala Thr Arg Gly Asp Cys Leu Ala Phe Gln Met Arg
      85             90             95
Ala Gly Leu Leu Pro
      100

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<210> 3891
 <211> 1687
 <212> DNA
 <213> Homo sapiens

<400> 3891

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60
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120
acaggccacg gcaactgagag tagtggctct ggcctctttg ccctgtgcac cctggatggg
180
aactgaagc tcatggaaga aatggaagaa gcagacaagc tgctgtgggc agtgcagggtg
240
gatcaccagc tctttgccct ggagaaactg gatgtcaccg gcaacgggca tgaggaggta
300
gttgcatgcg cctgggatgg acagacatat atcattgate acaaccgcac cgtcgtccgc
360
ttccaagtgg atgaaaatat ccgtgccttc tgtgcaggcc tgtacgctg caaagagggc
420
cgcaacagcc cctgcctcgt atatgtcact ttcaaccaga agatctatgt gtactgggag
480
gtgcagctgg agcggatgga gtctaccaat ctggtgaaac tgctggagac caagccgagt
540
accacagcct gctgcaggag ctgggcgtgg atcctgacga cctccctgtg actcgtgccc
600
tgcttcacca aacgctctac catccagacc agccaccaca gtgtgctccc tcaagcctcc
660
aggatcccac ctagctgtac ttgcctcata gctggtgaag gattcttctg aacccccacc
720
ctaccccccta aaggatatctg tggatttggc aggataggga atatgcatta cagaaatgca
780
ggatttgact ctgggcatga aagatggcag cagccctagg gtgaccgtga actatagacc
840

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tcgcagtctt ttcggtgaaa gaagagacaa gttgaccctc tgcccatttc cttatggacc
 900
 tcacccatca tgccagcagg gtcataggac ctggccttgt tccaaatcat ctgggacatg
 960
 acccactccc cactgtcact gtgttgaaaa cagagacttg tttgtgtggc cccaacaccc
 1020
 ataaggaaac caggctttag gccagggga gcagtggagg taagggtcc accccatctt
 1080
 aagctctgtc ttccgtggca caattccaag ttcttgacgt tagtaattgt taaaggaatg
 1140
 gcaaactggt ttgttttgaa ggatctttct acagtctggt cttacccatg ttcttagcaa
 1200
 ccctgagatg attttcttcc atttaccaaa gcagccgggt cagtgttttc tcacgttgcc
 1260
 gtattcttca ggtattagtc agcttcagaa gccctgctcc catttttcca cccaccatt
 1320
 ccccataaa acagcttatt gtctccaaga caatagacat ttaaaatgtg atgcggtttt
 1380
 atgatccaga ccacaatcag aattatatct tgggtcattt atgtgcgctc tgttcttgat
 1440
 tctctatgct ctaaactcgggt gtttttcaaa ctgtggttgc agtcctttgg tggattatgg
 1500
 ccagcathtt ttaaataggt agaatagaat aaagtaaaat agaaaatagc agagtacatt
 1560
 gctctcagt taggtaagta ttgttttggt agtcatatgt gcatgtgtgt actgagtgcc
 1620
 atgtaaaatg tattcctgct gtggtaagct gtggtcgagg agtttgaaag ccattgcttt
 1680
 caaatc
 1687

<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

Val	Arg	Val	Leu	Asn	Ile	Trp	Pro	Tyr	Pro	Gln	Gln	Glu	Cys	Leu	His
1				5					10					15	
Ser	Pro	Asn	Trp	Gln	His	Gln	Thr	Gly	His	Gly	Thr	Glu	Ser	Ser	Gly
		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
65				70						75				80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
			85					90					95		
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
			100					105					110		
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115					120					125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

130		135		140	
Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr					
145		150		155	160
Lys Pro Ser Thr Thr Ala Cys Cys Arg Ser Trp Ala Trp Ile Leu Thr					
	165		170		175
Thr Ser Leu					

<210> 3893
 <211> 1591
 <212> DNA
 <213> Homo sapiens

<400> 3893
 cgcgttctgc agaagttaga tgacgatgga ttgccgttta taggagcaaa actgcagtac
 60
 ggagatccgt attacagcta cctcaacctc aacaccgggg aaagttttgt gatgtactat
 120
 aagagtaaag aaaattgtgt tgtggataac atcaaagtgt gcagtaatga cactgggagt
 180
 ggaaaattca agtgtgtttg catcactatg agagtgcctc ggaacccaac tatcggagat
 240
 aaatttgcca gtcgccatgg gcagaagggc attttaagca gattgtggcc ggctgaggac
 300
 atgcctttta ctgagagtgg gatgggtcca gacattctgt tcaatcccca tggttttcca
 360
 tcccgcatga ccattgggat gttaattgag agtatggccg ggaagtctgc agctttgcac
 420
 ggtctctgcc atgatgtac acccttcac ttctcagagg agaactcggc cttagaatac
 480
 tttggtgaga tggttaaaggc tgctggctac aatttctatg gcaccgagag gttatatagt
 540
 ggcacagtg ggctagaact ggaagcagac atcttcatag gagtggttta ttatcagcgc
 600
 ttacgccata tgggtctcaga caaatttcaa gtaaggacaa ctggagcccc agacagagtc
 660
 accaaccagc ctattggggg aagaaatgtc cagggtggaa tccgttttgg ggagatggaa
 720
 cgggatgcgc ttttagctca tgggtacatct tttctccttc atgaccgcct cttcaactgc
 780
 tcagatcggc cggtagccca tgtgtgtgtg aagtgtggca gtttactctc tccactgttg
 840
 gagaagccac ccccttcttg gtctgccatg cgcaacagaa aatacaactg tactctgtgt
 900
 agtcgcagtg acactatcga tactgtttct gtgccttatg tttttcggtta ttttgtagct
 960
 gaactggcag ctatgaacat caaagtgaac ctggatgttg ttttaactga tgttgacctt
 1020
 ttggattaag aggactatca gattaaagca aaatgtaatt ttaattcaat gaagatatca
 1080
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 1140
 ccaagtatgc aagggttctg aatctctctg gtagattaac tattgacaat gattttctgt
 1200

tatctttggtt caaaaagtgc atgtcttctc aaaatatgaa atattgataa atggaagagc
 1260
 atacgggtgac aagtctcctt tccaacccca gggtccctac accctgctct cagcaggcag
 1320
 tgagtgtcac acacctgtta atccatcttg agcaggacag tactatacaa atagaatgca
 1380
 agctgtaatg taattttata ttttcttata gccacgttga agtaaaaaca aacaggtaca
 1440
 gtgtttttta ccagctttat agaagtacag ttgttacata tttaatgaat acaatttgat
 1500
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 1560
 ctgtcatctc caaaaaaaaa aaaaaaaaaa a
 1591

<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

Arg	Val	Leu	Gln	Lys	Leu	Asp	Asp	Asp	Gly	Leu	Pro	Phe	Ile	Gly	Ala
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Lys	Leu	Gln	Tyr	Gly	Asp	Pro	Tyr	Tyr	Ser	Tyr	Leu	Asn	Leu	Asn	Thr
		20						25				30			
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
		35					40					45			
Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
	50						55				60				
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65					70					75				80	
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
				85				90						95	
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
			100					105					110		
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115					120					125			
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
	130					135					140				
Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
145					150					155				160	
Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
			165					170						175	
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
		180					185						190		
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195				200						205			
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
	210					215					220				
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
225					230				235					240	
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
			245					250						255	
Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

			260					265					270		
Gly	Ser	Leu	Leu	Ser	Pro	Leu	Leu	Glu	Lys	Pro	Pro	Pro	Ser	Trp	Ser
			275					280					285		
Ala	Met	Arg	Asn	Arg	Lys	Tyr	Asn	Cys	Thr	Leu	Cys	Ser	Arg	Ser	Asp
			290				295				300				
Thr	Ile	Asp	Thr	Val	Ser	Val	Pro	Tyr	Val	Phe	Arg	Tyr	Phe	Val	Ala
305						310				315					320
Glu	Leu	Ala	Ala	Met	Asn	Ile	Lys	Val	Lys	Leu	Asp	Val	Val		
				325					330						

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<210> 3895
<211> 1227
<212> DNA
<213> Homo sapiens
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<400> 3895
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120
gtgaggaggc aagagcagcc cagcattgag agtacatctc cgatttcaag aactgatgaa
180
attagaaaaa acacctacag aacattggat agcctggagc agaccattaa acagctcgaa
240
aatacaatca gtgaaatgag tcccaaagcc ctagttgata cctcatgttc ttccaacaga
300
gattctgttg caagttcatc ccacatagcc caagaggcct ctccccgacc ctgtctagtt
360
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420
ggctccagcg gggccccaca gacgagcagg atgcctgtcc ccatgagtgc caagaacaga
480
cccggaaaccc tggacaaaacc cggcaagcag tccaaactgc aggatccccg ccaatatcgt
540
caggctaata gaagtgctaa gaaatctggt ggggacttta agcctacttc cccctcctta
600
cctgcttcta agattccagc cctttctccc agctctggga aaagcagttc tctgcctctc
660
tctagtggtg acagctctaa cctccctaata ccacctgcta ctaaaccatc gattgcttct
720
aaccctctca gcccccaaac aggaccacct gctcactctg cctccctcat cccttctgtc
780
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840
ttctcaccgc agagtcaaaa tggccgagca cccctcctt tgtcattttc ctctccctc
900
ccttctcctg cctctctcgt ctactgaat caagggtgcc agggcaccag gaccatccat
960
actcccagcc tcaccagcta caaggcacag aatggaagtt caagcaaagc caccatcc
1020
acagcaaaag aaacctctta aagggtcaaata cctattaggc acaagtcgga gttacattta
1080
aaaaaaatta acagtctaca acaactgttt tcacaagaga atgtaacata ttgctgtatc
1140

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gtttgaggct taatgctaaa tatgtgctaa atactggatt aatagatttc agtaaagctc
1200

gttcaaaaaa aaaaaaaaaa aaaaaaa
1227

<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

Lys	Thr	Leu	Arg	Val	Val	Tyr	Glu	Glu	Glu	Glu	Glu	Asp	Gly	Thr
1				5				10					15	
Leu	Lys	Gln	His	Lys	Glu	Ala	Lys	Arg	Phe	Glu	Ile	Ala	Arg	Gln
			20					25					30	
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro
		35					40					45		Ser
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys
		50				55				60				Asn
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu
65					70					75				80
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser
				85					90				95	Cys
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln
			100					105					110	Glu
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala
		115					120					125		Leu
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser
		130				135					140			Gly
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys	Asn
145					150					155				160
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln	Asp
			165					170					175	Pro
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly
		180					185					190		Asp
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala
		195					200					205		Leu
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Ser	Leu	Pro	Ser	Ser	Ser	Gly
	210				215						220			Asp
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile	Ala
225					230					235				240
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala	Ser
			245					250					255	Leu
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu	Thr
		260					265						270	His
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln	Asn
		275					280					285		Gly
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro
	290					295					300			Ala
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile
305					310					315				320
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser
			325					330					335	Lys
Ala	Thr	Pro	Ser	Thr	Ala	Lys	Glu	Thr	Ser					

340

345

<210> 3897
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 3897
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 agctcagcca gcaccgggtg atggcagga ggctgggct tctgcaactgg cttctggcct
 120
 cttctgggca cccacgcttt gtccatgaat ggaaagcaat gctgacggct gcccaatgtg
 180
 tccaggacgt ttctgaaact cctgttctc tccccgtccc tctctctgtc ccactgtcca
 240
 cctcagtgc ctctctctt cgtggctctc accccacact ctgccactgc cacattttcc
 300
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 360
 ggtccc
 366

<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
 Met Glu Glu Ala Leu His Ser His Leu Gln Leu Ser Gln His Arg Val
 1 5 10 15
 Met Ala Gly Arg Pro Gly Leu Leu His Trp Leu Leu Ala Ser Ser Gly
 20 25 30
 His Pro Arg Phe Val His Glu Trp Lys Ala Met Leu Thr Ala Ala Gln
 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
 50 55 60
 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
 65 70 75 80
 Pro Thr Leu Cys His Cys His Ile Phe Leu Cys Ala Gln Pro Leu Pro
 85 90 95
 Pro Pro Glu Thr Phe Leu Glu Ile Ser Lys Cys Asn Ser Arg Ser
 100 105 110

<210> 3899
 <211> 1092
 <212> DNA
 <213> Homo sapiens

<400> 3899
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 cgagaggtga gggtagcccc gctcacctg cagaggggccc gttccgggct cgaaccggc
 120

accttccgga aaatggcggc tgccaggccc agcctgggcc gagtcctccc aggatcctct
 180
 gtctgtttcc tgtgtgacat gcaggagaag ttccgccaca acatcgcccta cttcccacag
 240
 atcgtctcag tggctgcccc catgctcaag gtggccccgc tgcttgaggt gccagtcag
 300
 ctgacggagc agtaccacaca aggcctgggc cccacgggtgc ccgagctggg gactngaggg
 360
 ccttcggccg ctggccaaga cctgcttcag catgggtgcct gcctgcagca ggagctggac
 420
 agtcggcccc agctgcgctc tgtgctgctc tgtggcattg aggcacaggc ctgcatcttg
 480
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<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
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	100		105		110										
Val	Pro	Glu	Leu	Gly	Thr	Xaa	Gly	Pro	Ser	Ala	Ala	Gly	Gln	Asp	Leu
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			165						170				175		
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		180						185					190		
Ala	Arg	Met	Arg	Gln	Ser	Gly	Ala	Phe	Leu	Ser	Thr	Ser	Glu	Gly	Leu
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	210				215						220				
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<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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			20					25					30	Val
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala
			35				40					45		Ala
Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile
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Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro
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Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val
				85					90					95
Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu
			100					105					110	Glu
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg
			115				120						125	Ile
Asp	Ala	Asn	Gln	Glu	Leu	Leu	Ala	Ile	Gly	Leu	Thr	Asn	Met	Leu
			130				135				140			Gly
Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr
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Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val
			165						170					175
Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe
			180					185					190	Tyr
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Val	Ile	Ile	Met	Ala	Val	Ala
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Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys
			210				215				220			Arg
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp
225					230					235				240
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met

				245					250					255		
Leu	His	Ser	Ala	Ala	Arg	Pro	Glu	Thr	Lys	Val	Ser	Glu	Gly	Pro	Val	
				260					265					270		
Leu	Val	Leu	Gln	Pro	Ala	Ser	Gly	Leu	Ser	Phe	Pro	Val	Leu	Cys	Pro	
				275					280					285		
Pro	Leu	Pro	Ala	Val	Gln	Asp	Pro	Lys	Thr	Leu	Ser	Pro	Thr	Leu	Ser	
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<211> 598
<212> DNA
<213> Homo sapiens
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<210> 3904
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<212> PRT
<213> Homo sapiens
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Gly	Glu	Ala	Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu
			20					25					30		
Val	Ile	Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala
		35					40					45			
Phe	Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
	50					55					60				
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe	Asn
65					70					75					80
Leu	Leu	Leu	Arg	Val	Asn	His	Ile	Gly	Pro	Phe	Leu	Leu	Thr	His	Leu

85								90				95			
Leu	Leu	Pro	Cys	Leu	Lys	Ala	Cys	Ala	Pro	Ser	Arg	Val	Val	Val	Val
100								105				110			
Ala	Ser	Ala	Ala	His	Cys	Arg	Gly	Arg	Leu	Asp	Phe	Lys	Arg	Leu	Asp
115								120				125			
Arg	Pro	Val	Val	Leu	Ala	Ala	Gly	Ala	Ala	Ala	Tyr	Ala	Asp	Thr	Lys
130								135				140			
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145								150				155			
Thr	Gly	Val	Thr	Cys	Tyr	Ala	Ala	His	Pro	Gly	Pro	Val	Asn	Ser	Glu
165								170				175			
Leu	Phe	Leu	Arg	His	Val	Pro	Gly	Trp	Leu	Arg	Pro	Leu	Leu	Arg	Pro
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<212> DNA
<213> Homo sapiens
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<210> 3906
<211> 123
<212> PRT
<213> Homo sapiens
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<400> 3906																
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			20					25					30			
Asn	Ile	Gly	Gly	Asp	Phe	Asp	Val	Ala	Thr	Gly	Gln	Phe	Arg	Cys	Arg	
		35				40						45				
Val	Pro	Gly	Ala	Tyr	Phe	Phe	Ser	Phe	Thr	Ala	Gly	Lys	Ala	Pro	His	
	50					55					60					
Lys	Ser	Pro	Ser	Val	Met	Leu	Val	Arg	Asn	Arg	Asp	Glu	Val	Gln	Ala	
65					70					75					80	
Leu	Ala	Phe	Asp	Glu	Gln	Arg	Arg	Pro	Gly	Ala	Arg	Arg	Ala	Ala	Ser	

	85		90		95
Gln Ser Ala Met	Leu Gln Leu Asp	Tyr Gly Asp Thr Val Trp	Leu Arg		
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<210> 3907

<211> 4474

<212> DNA

<213> Homo sapiens

<400> 3907

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<210> 3908
 <211> 1373
 <212> PRT
 <213> Homo sapiens

<400> 3908

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      35           40           45
Thr Lys Arg Leu Lys Met Ser Gly Gly Ala Ser Ala Thr Gly Pro Arg
      50           55           60
Arg Gly Pro Pro Gly Leu Glu Asp Thr Thr Ser Lys Lys Lys Gln Lys
65           70           75           80
Asp Arg Ala Asn Gln Glu Ser Lys Asp Gly Asp Pro Arg Lys Glu Thr
      85           90           95
Gly Ser Arg Tyr Val Ala Gln Ala Gly Leu Glu Pro Leu Ala Ser Gly
      100          105          110
Asp Pro Ser Ala Ser Ala Ser His Ala Ala Gly Ile Thr Gly Ser Arg
      115          120          125
His Arg Thr Arg Leu Phe Phe Pro Ser Ser Ser Gly Ser Ala Ser Thr
      130          135          140
Pro Gln Glu Glu Gln Thr Lys Glu Gly Ala Cys Glu Asp Pro His Asp
145          150          155          160
Leu Leu Ala Thr Pro Thr Pro Glu Leu Leu Leu Asp Trp Arg Gln Ser
      165          170          175
Ala Glu Glu Val Ile Val Lys Leu Arg Val Gly Val Gly Pro Leu Gln
      180          185          190
Leu Glu Asp Val Asp Ala Ala Phe Thr Asp Thr Asp Cys Val Val Arg
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Phe Ala Gly Gly Gln Gln Trp Gly Gly Val Phe Tyr Ala Glu Ile Lys
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Ser Ser Cys Ala Lys Val Gln Thr Arg Lys Gly Ser Leu Leu His Leu
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Thr Leu Pro Lys Lys Val Pro Met Leu Thr Trp Pro Ser Leu Leu Val
      245          250          255
Glu Ala Asp Glu Gln Leu Cys Ile Pro Pro Leu Asn Ser Gln Thr Cys
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Leu Leu Gly Ser Glu Glu Asn Leu Ala Pro Leu Ala Gly Glu Lys Ala
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Val Pro Pro Gly Asn Asp Pro Val Ser Pro Ala Met Val Arg Ser Arg
      290          295          300
Asn Pro Gly Lys Asp Asp Cys Ala Lys Glu Glu Met Ala Val Ala Ala
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Asp Ala Ala Thr Leu Val Asp Gly Lys Glu Pro Glu Ser Met Val Asn
      325          330          335
Leu Ala Phe Val Lys Asn Asp Ser Tyr Glu Lys Gly Pro Asp Ser Val
      340          345          350
Val Val His Val Tyr Val Lys Glu Ile Cys Arg Asp Thr Ser Arg Val
      355          360          365
Leu Phe Arg Glu Gln Asp Phe Thr Leu Ile Phe Gln Thr Arg Asp Gly

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Asn Phe Leu Arg Leu His Pro Gly Cys Gly Pro His Thr Thr Phe Arg		
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Trp Gln Val Lys Leu Arg Asn Leu Ile Glu Pro Glu Gln Cys Thr Phe		400
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Cys Phe Thr Ala Ser Arg Ile Asp Ile Cys Leu Arg Lys Arg Gln Ser		415
	420	425
Gln Arg Trp Gly Gly Leu Glu Ala Pro Ala Ala Arg Val Gly Gly Ala		430
	435	440
Lys Val Ala Val Pro Thr Gly Pro Thr Pro Leu Asp Ser Thr Pro Pro		445
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Gly Gly Ala Pro His Pro Leu Thr Gly Gln Glu Glu Ala Arg Ala Val		460
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Glu Lys Asp Lys Ser Lys Ala Arg Ser Glu Asp Thr Gly Leu Asp Ser		480
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Val Ala Thr Arg Thr Pro Met Glu His Val Thr Pro Lys Pro Glu Thr		495
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His Leu Ala Ser Pro Lys Pro Thr Cys Met Val Pro Pro Met Pro His		510
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Ser Pro Val Ser Gly Asp Ser Val Glu Glu Glu Glu Glu Glu Glu Lys		525
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Lys Val Cys Leu Pro Gly Phe Thr Gly Leu Val Asn Leu Gly Asn Thr		540
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Cys Phe Met Asn Ser Val Ile Gln Ser Leu Ser Asn Thr Arg Glu Leu		560
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Arg Asp Phe Phe His Asp Arg Ser Phe Glu Ala Glu Ile Asn Tyr Asn		575
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Asn Pro Leu Gly Thr Gly Gly Arg Leu Ala Ile Gly Phe Ala Val Leu		590
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Leu Arg Ala Leu Trp Lys Gly Thr His His Ala Phe Gln Pro Ser Lys		605
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Gln His Asp Ala Gln Glu Phe Met Ala Phe Leu Leu Asp Gly Leu His		640
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Glu Asp Leu Asn Arg Ile Gln Asn Lys Pro Tyr Thr Glu Thr Val Asp		655
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Ser Asp Gly Arg Pro Asp Glu Val Val Ala Glu Glu Ala Trp Gln Arg		670
	675	680
His Lys Met Arg Asn Asp Ser Phe Ile Val Asp Leu Phe Gln Gly Gln		685
	690	695
Tyr Lys Ser Lys Leu Val Cys Pro Val Cys Ala Lys Val Ser Ile Thr		700
705	710	715
Phe Asp Pro Phe Leu Tyr Leu Pro Val Pro Leu Pro Gln Lys Gln Lys		720
	725	730
Val Leu Pro Val Phe Tyr Phe Ala Arg Glu Pro His Ser Lys Pro Ile		735
	740	745
Lys Phe Leu Val Ser Val Ser Lys Glu Asn Ser Thr Ala Ser Glu Val		750
	755	760
Leu Asp Ser Leu Ser Gln Ser Val His Val Lys Pro Glu Asn Leu Arg		765
	770	775
Leu Ala Glu Val Ile Lys Asn Arg Phe His Arg Val Phe Leu Pro Ser		780
785	790	795
His Ser Leu Asp Thr Val Ser Pro Ser Asp Thr Leu Leu Cys Phe Glu		800

Leu	Leu	Ser	Ser	Glu	Leu	Ala	Lys	Glu	Arg	Val	Val	Val	Leu	Glu	Val
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Cys	Gln	Arg	Lys	Gln	Gln	Ser	Glu	Asp	Glu	Lys	Leu	Lys	Arg	Cys	Thr
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Arg															

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Ser Gln Ala Ser Arg Ile Trp Gln Glu Leu Glu Ala Glu Glu Glu Pro		
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Val Pro Glu Gly Ser Gly Pro Leu Gly Pro Trp Gly Pro Gln Asp Trp		
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Val Gly Pro Leu Pro Arg Gly Pro Thr Thr Pro Asp Glu Gly Cys Leu		
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Asp	Leu	Tyr	Arg	His	Pro	Gln	Leu	Asp	Ala	Asp	Ile	Glu	Ala	Val	Lys
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Glu	Ile	Tyr	Ser	Glu	Asn	Ser	Val	Ser	Ile	Arg	Glu	Tyr	Gly	Thr	Ile
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Asp	Asp	Val	Asp	Ile	Asp	Leu	His	Ile	Asn	Ile	Ser	Phe	Leu	Asp	Glu
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Glu	Val	Ser	Thr	Ala	Trp	Lys	Val	Leu	Arg	Thr	Glu	Pro	Ile	Val	Leu
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Arg	Leu	Arg	Phe	Ser	Leu	Ser	Gln	Tyr	Leu	Asp	Gly	Pro	Glu	Pro	Ser
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Phe	Ser	Pro	Ile	Pro	Lys	Ser	Pro	Ser	Phe	Pro	Ile	Ile	Gln	Asp	Ser
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Met	Leu	Lys	Gly	Lys	Leu	Gly	Val	Pro	Glu	Leu	Arg	Val	Gly	Arg	Leu
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Gln	Leu	Lys	Phe	Met	His	Thr	Ser	His	Gln	Phe	Leu	Leu	Leu	Ser	Ser			
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Ser	Thr	Phe	Ala	Phe	His	Gly	Ser	His	Ile	Glu	Asn	Trp	His	Ser	Ile			
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Leu	Arg	Asn	Gly	Leu	Val	Asn	Ala	Ser	Tyr	Thr	Lys	Leu	Gln	Glu	Trp			
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Glu	Lys	Asp	Ser	Thr	Gly	Cys	Pro	Pro	Arg	Met	Ser	Trp	Ser	Arg	Asp			
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 Gln Pro Ala Glu Gly Leu Val Ala Asn Val Ile Thr Ala Gly Asp Tyr
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 Glu Gln Phe Ser Lys Leu Ser Gln Glu Gln His Arg Ile Gln His Asn
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Asp Gly Leu Pro Asn Asn Phe	Arg Ala His Pro Leu Gln Leu Glu Gln	285
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 Met Lys Arg Pro Ser Pro Pro Pro Gln Pro Ser Ser Val Lys Ser Leu
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 Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu
 210 215 220
 Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val
 225 230 235 240
 Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu
 245 250 255
 Lys Glu Leu Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu
 260 265 270
 Leu Arg Met Leu Glu Lys Arg Gln Met Asp Arg Ala Glu His Lys Gly
 275 280 285
 Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys Asp Val His
 290 295 300
 Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln Ser Phe
 305 310 315 320
 Arg Glu Lys Met Ala Phe Phe Thr Arg Pro Arg Met Asn Ile Pro Ala

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<211> 597
<212> DNA
<213> Homo sapiens

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<211> 152
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<213> Homo sapiens

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Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
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Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

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Glu Thr Trp Asn Pro Phe Lys Leu
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140

<210> 3919
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<212> DNA
<213> Homo sapiens

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1080
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1278

<210> 3920

<211> 426

<212> PRT

<213> Homo sapiens

<400> 3920

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Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
      35           40           45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
      50           55           60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
      65           70           75           80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
      85           90           95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
      100          105          110
Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
      115          120          125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
      130          135          140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
      145          150          155          160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
      165          170          175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
      180          185          190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
      195          200          205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
      210          215          220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
      225          230          235          240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
      245          250          255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
      260          265          270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
      275          280          285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
      290          295          300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
      305          310          315          320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
      325          330          335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
      340          345          350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
      355          360          365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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      370              375              380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser
385              390              395              400
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His
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Gln Thr Val Thr Glu Ala Asn Gly Lys Leu
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<210> 3921
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 <213> Homo sapiens

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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
 50 55 60
 Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
 65 70 75 80
 Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
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 115 120 125

<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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		20						25					30		
Ser	Glu	Tyr	Thr	Gly	Pro	Thr	Ser	Ala	Asp	Leu	Asp	His	Phe	Pro	Ser
		35					40					45			
Val	Ser	Gln	Thr	Lys	Ala	Glu	Gln	Asp	Ser	Asp	Asn	Lys	Ser	Ser	Thr
		50				55					60				
Glu	Ile	Pro	Leu	Glu	Thr	Cys	Cys	Ser	Ser	Glu	Leu	Lys	Gly	Gly	Gly
65					70					75				80	
Ser	Gly	Thr	Ser	Leu	Glu	Arg	Glu	Gln	Phe	Glu	Gly	Leu	Gly	Ser	Thr
				85					90					95	
Pro	Asp	Ala	Lys	Leu	Asp	Lys	Thr	Cys	Ile	Ser	Arg	Ala	Met	Lys	Ile
			100					105					110		
Thr	Thr	Val	Asn	Ser	Val	Leu	Pro	Gln	Asn	Ser	Val	Leu	Gly	Gly	Val


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<210> 3925
<211> 3296
<212> DNA
<213> Homo sapiens
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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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			20					25					30		
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
		35					40					45			
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
	50					55				60					
Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
65					70				75					80	
Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
			85					90					95		
Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
		100						105					110		
Asp	Arg	Ala	Glu	Tyr	Leu	Gly	Ser	Cys	Leu	Leu	His	Lys	Gly	Tyr	Lys
	115					120					125				
Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
	130					135				140					
Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
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Pro	Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Glu	Ala	Ile	Val	His	Ile	Val	Asn

				165					170					175			
Lys	Ala	Asp	Ile	Ala	Met	Val	Ile	Cys	Asp	Thr	Pro	Gln	Lys	Ala	Leu		
			180					185					190				
Val	Leu	Ile	Gly	Asn	Val	Glu	Lys	Gly	Phe	Thr	Pro	Ser	Leu	Lys	Val		
		195					200					205					
Ile	Ile	Leu	Met	Asp	Pro	Phe	Asp	Asp	Asp	Leu	Lys	Gln	Arg	Gly	Glu		
	210					215					220						
Lys	Ser	Gly	Ile	Glu	Ile	Leu	Ser	Leu	Tyr	Asp	Ala	Glu	Asn	Leu	Asp		
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Lys	Glu	His	Phe	Arg	Lys	Pro	Val	Pro	Pro	Ser	Pro	Glu	Asp	Leu	Ser		
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Val	Ile	Cys	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Asp	Pro	Lys	Gly	Ala	Met		
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Val	Glu	His	Ala	Tyr	Glu	Pro	Thr	Pro	Asp	Asp	Val	Ala	Ile	Ser	Tyr		
	290					295					300						
Leu	Pro	Leu	Ala	His	Met	Phe	Glu	Arg	Ile	Val	Gln	Ala	Val	Val	Tyr		
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Ser	Cys	Gly	Ala	Arg	Val	Gly	Phe	Phe	Gln	Gly	Asp	Ile	Arg	Leu	Leu		
				325					330					335			
Ala	Asp	Asp	Met	Lys	Thr	Leu	Lys	Pro	Thr	Leu	Phe	Pro	Ala	Val	Pro		
			340					345					350				
Arg	Leu	Leu	Asn	Arg	Ile	Tyr	Asp	Lys	Val	Gln	Asn	Glu	Ala	Lys	Thr		
	355						360					365					
Pro	Leu	Lys	Lys	Phe	Leu	Leu	Lys	Leu	Ala	Val	Ser	Ser	Lys	Phe	Lys		
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Glu	Leu	Gln	Lys	Gly	Ile	Ile	Arg	His	Asp	Ser	Phe	Trp	Asp	Lys	Leu		
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Ile	Phe	Ala	Lys	Ile	Gln	Asp	Ser	Leu	Gly	Gly	Arg	Val	Arg	Val	Ile		
				405					410					415			
Val	Thr	Gly	Ala	Ala	Pro	Ile	Ser	Thr	Pro	Val	Leu	Thr	Phe	Phe	Arg		
			420					425					430				
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Thr	Gly	Gly	Cys	Thr	Phe	Thr	Leu	Pro	Gly	Asp	Trp	Thr	Ser	Gly	His		
	450					455					460						
Val	Gly	Val	Pro	Leu	Ala	Cys	Asn	Tyr	Val	Lys	Leu	Glu	Asp	Val	Ala		
465					470					475					480		
Asp	Met	Asn</															

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Lys Ile Gly Lys Glu Ser Gly Leu Lys Thr Phe Glu Gln Val Lys Ala		
625	630	635
Ile Phe Leu His Pro Glu Pro Phe Ser Ile Glu Asn Gly Leu Leu Thr		
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<211> 3197

<212> DNA

<213> Homo sapiens

<400> 3927

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<210> 3928

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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			85						90					95	
Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100					105					110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
		115					120						125		
Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
		130				135					140				
Ala	Lys	Gly	Ile	Ser	Lys	Arg	Arg	His	Phe	Leu	Pro	Ala	Pro	Ala	Leu
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Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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Thr	Leu	Ala	Ile												
			180												

<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

<400> 3929

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<210> 3930

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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			20					25					30		
Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
		35					40					45			
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
	50						55				60				
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
65					70					75				80	
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
			85					90					95		
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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120
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180

gcattctata atttcaaag aaatctatac tttaaaaaca attaatgtca aattttgtca
240
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300
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360
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<210> 3932

<211> 293

<212> PRT

<213> Homo sapiens

<400> 3932

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			20					25					30		
Cys	His	Tyr	Trp	Lys	Ser	Ser	Ser	Ile	Glu	Glu	Arg	Gly	Tyr	Trp	Gly
		35				40						45			
Ser	Gly	Ser	Ala	Ile	Met	Ala	Pro	Ala	Pro	Phe	Arg	Ser	Gln	Ser	Thr
	50					55					60				
Arg	Ser	Ser	Ile	Glu	Asp	Asp	Phe	Asn	Tyr	Gly	Ser	Ser	Val	Ala	Ser
65					70					75				80	
Ala	Thr	Val	His	Ile	Arg	Met	Ala	Phe	Leu	Arg	Lys	Val	Tyr	Ser	Ile
			85						90					95	
Leu	Ser	Leu	Gln	Val	Leu	Leu	Thr	Thr	Val	Thr	Ser	Thr	Val	Phe	Leu
			100					105					110		
Tyr	Phe	Glu	Ser	Val	Arg	Thr	Phe	Val	His	Glu	Ser	Pro	Ala	Leu	Ile
		115					120					125			
Leu	Leu	Phe	Ala	Leu	Gly	Ser	Leu	Gly	Leu	Ile	Phe	Ala	Leu	Thr	Leu
		130				135					140				
Asn	Arg	His	Lys	Tyr	Pro	Leu	Asn	Leu	Tyr	Leu	Leu	Phe	Gly	Phe	Thr
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Leu	Leu	Glu	Ala	Leu	Thr	Val	Ala	Val	Val	Val	Thr	Phe	Tyr	Asp	Val
			165					170						175	
Tyr	Ile	Ile	Leu	Gln	Ala	Phe	Ile	Leu	Thr	Thr	Thr	Val	Phe	Phe	Gly
			180					185					190		
Leu	Thr	Val	Tyr	Thr	Leu	Gln	Ser	Lys	Lys	Asp	Phe	Ser	Lys	Phe	Gly
		195					200					205			
Ala	Gly	Leu	Phe	Ala	Leu	Leu	Trp	Ile	Leu	Cys	Leu	Ser	Gly	Phe	Leu
	210					215					220				
Lys	Phe	Phe	Phe	Tyr	Ser	Glu	Ile	Met	Glu	Leu	Val	Leu	Ala	Ala	Ala
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Gly	Ala	Leu	Leu	Phe	Cys	Gly	Phe	Ile	Ile	Tyr	Asp	Thr	His	Ser	Leu
			245						250					255	
Met	His	Lys	Leu	Ser	Pro	Glu	Glu	Tyr	Val	Leu	Ala	Ala	Ile	Ser	Leu
			260					265					270		
Tyr	Leu	Asp	Ile	Ile	Asn	Leu	Phe	Leu	His	Leu	Leu	Arg	Phe	Leu	Glu
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<210> 3933

<211> 4082

<212> DNA

<213> Homo sapiens

<400> 3933

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 3960
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<210> 3934

<211> 130

<212> PRT

<213> Homo sapiens

<400> 3934

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Pro	Ser	Arg	Arg	Ala	His	Ser	Leu	Thr	Thr	Ala	Gly	Ser	Pro	Asn	Leu
			20					25					30		
Ala	Ala	Gly	Thr	Ser	Ser	Pro	Ile	Arg	Pro	Val	Ser	Ser	Pro	Val	Leu
		35					40				45				
Ser	Ser	Ser	Asn	Lys	Ser	Pro	Ser	Ser	Ala	Trp	Ser	Ser	Ser	Ser	Trp
		50				55					60				
His	Gly	Arg	Ile	Lys	Gly	Gly	Met	Lys	Gly	Phe	Gln	Ser	Phe	Met	Val
65				70					75					80	
Ser	Asp	Ser	Asn	Met	Ser	Phe	Val	Glu	Phe	Val	Glu	Leu	Phe	Lys	Ser
			85					90					95		
Phe	Ser	Val	Arg	Ser	Arg	Lys	Asp	Leu	Lys	Asp	Leu	Phe	Asp	Xaa	Leu

	100		105		110										
Cys	Ser	Ala	Leu	Gln	Pro	Xaa	Leu	Ala	Pro	Ser	Gln	Pro	His	Ser	Thr
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Pro	Thr														
	130														

<210> 3935
 <211> 1103
 <212> DNA
 <213> Homo sapiens

<400> 3935
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 480
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 660
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 720
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 840
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 900
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<210> 3936
 <211> 265
 <212> PRT

<213> Homo sapiens

<400> 3936

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          20           25           30
Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val
          35           40           45
Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
          50           55           60
Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
          85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
          100          105          110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
          115          120          125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
          130          135          140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
145          150          155          160
Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
          165          170          175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
          180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
          195          200          205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
          210          215          220
Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
225          230          235          240
Gly Gly Phe Pro Arg Thr Gly Gly Arg Leu Pro Gly Ala Ser Tyr Gln
          245          250          255
Pro Arg Arg Gln Lys Cys Pro Val Pro
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<210> 3937

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3937

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180
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240
cccgggagag cggcggaagc aggaaatgct aaaggagatg ccaactgcagg acccaaggag
300

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 420
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 540
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<210> 3938
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 3938
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 20 25 30
 Arg Arg Gly Trp Arg Gly Leu Arg Ala Pro Arg Tyr Arg Asp Pro Gly
 35 40 45
 Arg Ala Ala Glu Ala Gly Asn Ala Lys Gly Asp Ala Thr Ala Gly Pro
 50 55 60
 Lys Glu Gln Gly Gly Gly Gly Gln Asp Pro Ala Ala Ile Ala Gly His
 65 70 75 80
 Ser Ala Gly Gly Ser Asp His Ala Gly Glu Arg Gly Leu Xaa Gly Arg
 85 90 95
 Thr Gly Trp Leu Ala Ala Lys Ala Ala Pro Ala Gly Gly His Arg Glu
 100 105 110
 Thr Gly Leu Ala Ser Val Gly Ala Gly Pro Trp Leu Gly Arg Arg Asn
 115 120 125
 Pro Arg Gln Pro Phe Ser Phe Val Gly Pro Ala Glu Ser Pro Asp Arg
 130 135 140
 Asp Thr Met Pro Gly Leu Ser Gly Val Leu
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<210> 3939
 <211> 490
 <212> DNA
 <213> Homo sapiens

<400> 3939
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 120

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<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

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Thr	Asp	Arg	Gln	Thr	Gly	Lys	Val	Arg	Trp	Lys	His	Thr	Glu	Asp	Glu
			20				25					30			
Arg	Asp	Arg	Gln	Trp	Glu	Ala	Glu	Leu	Lys	Thr	Val	Lys	Glu	Arg	Ala
		35				40					45				
Thr	Asp	Ser	Glu	Gly	Gly	Arg	Asp	Arg	Leu	Glu	Pro	Phe	Leu		
	50					55					60				

<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

<400> 3941

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 240
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 300
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 360
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 420
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 480
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720
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2077

<210> 3942

<211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3942

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Gly	Trp	Ser	Pro	Gly	Pro	Ala	Gly	Pro	Gln	Gly	Thr	Gly	Ser	Pro	Pro
			20					25					30		
Gln	Glu	Arg	Leu	Arg	Leu	Thr	Arg	Gly	Trp	Ser	Pro	Gln	Gly	Gly	Cys
		35					40					45			
Gly	Ala	Arg	Ser	Gln	Ser	Thr	Pro	Ser	Ser	Asp	Thr	Leu	Pro	Pro	Ala
	50					55				60					
Leu	Leu	Gly	Ser	Pro	Ala	Ser	Val	Ser	Gly	Thr	Gly	Gly	Thr	Asp	Met
65					70				75					80	
Ser	Ser	Ala	Asn	Ala	His	Ser	Ala	Leu							
					85										

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

<400> 3943

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 420
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 720
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 780
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 840
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 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc
 960
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<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
		35					40				45				
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
	50				55					60					
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70				75					80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85				90					95		
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
			100				105					110			
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
		115					120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
	130				135					140					
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145				150					155					160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170					175		
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
		180					185					190			
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

195	200	205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys		
210	215	220
Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala		
225	230	235
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile		
245	250	255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu		
260	265	270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser		
275	280	285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile		
290	295	300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu		
305	310	315
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly		
325	330	335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala		
340	345	350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr		
355	360	365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg		
370	375	380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His		
385	390	395
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln		
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Val Leu Leu		
435		

<210> 3945

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3945

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120

cggcgcgccc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt
180

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240

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300

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420

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480

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 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 3946
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 Gly Leu Gln His His Lys Ala Val Gly Pro Gly His Leu Gln His Leu
 35 40 45
 Thr Glu Leu Arg Leu Arg Gln Arg Asp Leu Leu Glu Gln Arg Val Gln
 50 55 60
 Gly His Ala Ala Pro Val Gly Ala Gln Asp Phe Gly Asp Glu Ala Ala
 65 70 75 80
 His Leu Arg Val Arg His Gly Ala Leu Ala Val Leu Ala Leu Pro Arg
 85 90 95
 Arg Gly Thr Arg Phe Arg Gly Asn Arg Lys Ser Lys Leu Thr Ser Val
 100 105 110
 Gln Gly Arg Ala Arg Ala Val Leu Leu Leu Gly Ala Pro Gly Val Ser
 115 120 125
 Glu Gly Ala Leu Ser Val Ala Val Ser Pro Ala Gln Arg Ser Thr Leu
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 Gly Ser Gln Val Lys Arg Leu Asp Leu Thr Asp Arg Val Leu Val Ala
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 Gly Leu Gln Pro Ala
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<210> 3947
 <211> 400
 <212> DNA
 <213> Homo sapiens

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 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc
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 300

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<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

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 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
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 300
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 360
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 420
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 480
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 780
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 960
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 1020
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 1320
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 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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		20					25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35				40					45				
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
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Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65				70					75					80	
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85					90					95		
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
		100						105				110			
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

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Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg		
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Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln		
145	150	155
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr		
165	170	175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala		
180	185	190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile		
195	200	205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser		
210	215	220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu		
225	230	235
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg		
245	250	255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu		
260	265	270
Val Glu His Tyr Lys Tyr Glu Leu Lys Ala Met Arg Lys Lys Arg		
275	280	285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val		
290	295	300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe		
305	310	315
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu		
325	330	335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu		
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<210> 3951
 <211> 1012
 <212> DNA
 <213> Homo sapiens

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<210> 3952
<211> 188
<212> PRT
<213> Homo sapiens

<400> 3952
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35 40 45
Lys Thr Ser Leu Arg Ser Gly Arg Ala Ala Leu Arg Glu Leu Arg Ser
50 55 60
Arg Glu Asn Phe Leu Ser Lys Leu Asn Arg Glu Leu Ile Glu Thr Ile
65 70 75 80
Gln Glu Met Glu Asn Ser Thr Thr Leu His Val Arg Ala Leu Leu Gln
85 90 95
Gln Gln Asp Thr Leu Ala Thr Ile Ile Asp Ile Leu Glu Tyr Ser Asn
100 105 110
Lys Lys Arg Leu Gln Gln Leu Lys Ser Glu Leu Gln Glu Trp Glu Glu
115 120 125
Lys Lys Lys Cys Lys Met Ser Tyr Leu Glu Gln Gln Ala Glu Gln Leu
130 135 140
Asn Ala Lys Ile Glu Lys Thr Gln Glu Glu Val Asn Phe Leu Ser Thr
145 150 155 160
Tyr Met Asp His Glu Tyr Ser Ile Lys Ser Val Gln Ile Ser Thr Leu
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Met Arg His Cys Ser Arg Leu Arg Thr Ala Ser Arg
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<210> 3953
<211> 2900
<212> DNA
<213> Homo sapiens

<400> 3953

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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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Val	Ser	Glu	Ala	Val	Pro	Leu	Gly	Ala	Ala	Ala	Leu	Val	Pro	Ala	Phe				
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Leu	Tyr	Pro	Phe	Phe	Gly	Val	Leu	Arg	Ser	Asn	Glu	Val	Ala	Ala	Glu				
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Tyr	Phe	Lys	Asn	Thr	Thr	Leu	Leu	Leu	Val	Gly	Val	Ile	Cys	Val	Ala				
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Ala	Ala	Val	Glu	Lys	Trp	Asn	Leu	His	Lys	Arg	Ile	Ala	Leu	Arg	Met				
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Val	Leu	Met	Ala	Gly	Ala	Lys	Pro	Gly	Met	Leu	Leu	Leu	Cys	Phe	Met				
		115					120					125							
Cys	Cys	Thr	Thr	Leu	Leu	Ser	Met	Trp	Leu	Ser	Asn	Thr	Ser	Thr	Thr				
		130				135					140								
Ala	Met	Val	Met	Pro	Ile	Val	Glu	Ala	Val	Leu	Gln	Glu	Leu	Val	Ser				
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Ala	Glu	Asp	Glu	Gln	Leu	Val	Ala	Gly	Asn	Ser	Asn	Thr	Glu	Glu	Ala				
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Pro	Gln	Val	Leu	Thr	Pro	Ser	Pro	Arg	Lys	Gln	Lys	Leu	Asn	Arg	Lys				
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Tyr	Arg	Ser	His	His	Asp	Gln	Met	Ile	Cys	Lys	Cys	Leu	Ser	Leu	Ser				
			260				265					270							
Ile	Ser	Tyr	Ser	Ala	Thr	Ile	Gly	Gly	Leu	Thr	Thr	Ile	Ile	Gly	Thr				
		275				280						285							
Ser	Thr	Ser	Leu	Ile	Phe	Leu	Glu	His	Phe	Asn	Asn	Gln	Tyr	Pro	Ala				
	290					295				300									
Ala	Glu	Val	Val	Asn	Phe	Gly	Thr	Trp	Phe	Leu	Phe	Ser	Phe	Pro	Ile				
305					310					315					320				
Ser	Leu	Ile	Met	Leu	Val	Val	Ser	Trp	Phe	Trp	Met	His	Trp	Leu					

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Trp Glu Ile Val Ile Leu Val Gly Gly Gly Tyr Ala Leu Ala Ser Gly		
465	470	475
Ser Lys Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln Met Leu Ser		480
	485	490
Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu		495
	500	505
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile		510
	515	520
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro		525
	530	535
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met		540
545	550	555
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His		560
	565	570
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile		575
	580	585
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu		590
	595	600
Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr		605
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Asp Gln Ala		620
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<210> 3955

<211> 522

<212> DNA

<213> Homo sapiens

<400> 3955

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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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 35 40 45
 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
 50 55 60
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
 65 70 75 80
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
 85 90 95
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
 100 105 110
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
 115 120 125
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
 130 135 140
 Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val
 145 150 155 160
 Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His
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<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
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Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
          85           90           95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
          100          105          110
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Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
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Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
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Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
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Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
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Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
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Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
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Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
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<212> DNA

<213> Homo sapiens

<400> 3959

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<211> 94

<212> PRT

<213> Homo sapiens

<400> 3960

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			20					25					30		
Ser	Lys	Tyr	Gly	Ser	Gln	Phe	Gln	Gly	Asn	Ser	Gln	His	Asp	Ala	Leu
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Glu	Phe	Leu	Leu	Trp	Leu	Leu	Asp	Arg	Val	His	Glu	Asp	Leu	Glu	Gly

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<212> PRT

<213> Homo sapiens

<400> 3962

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<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

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Val	Gly	Lys	Gly	Pro	Gly	Ser	Arg	Pro	Gln	Ile	Ser	Lys	Glu	Ser	Ser		
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<213> Homo sapiens

<400> 3965
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<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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Asp	Val	Ala	Val	Tyr	Phe	Ser	Pro	Glu	Glu	Trp	Glu	Cys	Leu	Arg	Pro									
		35				40				45														
Ala	Gln	Arg	Ala	Leu	Tyr	Arg	Asp	Val	Met	Arg	Glu	Thr	Phe	Gly	His									
		50				55				60														
Leu	Gly	Ala	Leu	Gly	Glu	Ala	Gly	Pro	Ser	Gly	Arg	Asp	Pro	Gln	Ser									
65					70				75															
Val	Gly	Phe	Ser	Val	Pro	Lys	Pro	Ala	Phe	Ile	Ser	Trp	Val	Glu	Gly									
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Glu	Val	Glu	Ala	Trp	Ser	Pro	Glu	Ala	Gln	Asp	Pro	Asp	Gly	Glu	Ser									
		100				105				110														
Ser	Ala	Ala	Phe	Ser	Arg	Gly	Gln	Gly	Gln	Glu	Ala	Gly	Ser	Arg	Asp									
		115				120				125														
Gly	Asn	Glu	Glu	Lys	Glu	Arg	Leu	Lys	Lys	Cys	Pro	Lys	Gln	Lys	Glu									
		130				135				140														
Val	Ala	His	Glu	Val	Ala	Val	Lys	Glu	Trp	Trp	Pro	Ser	Val	Ala	Cys									
145					150				155															
Pro	Glu	Phe	Cys	Asn	Pro	Arg	Gln	Ser	Pro	Met	Asn	Pro	Trp	Leu	Lys									
				165				170																
Asp	Thr	Leu	Thr	Arg	Arg	Leu	Pro	His	Ser	Cys	Pro	Asp	Cys	Gly	Arg									
		180				185				190														
Asn	Phe	Ser	Tyr	Pro	Ser	Leu	Leu	Ala	Ser	His	Gln	Arg	Val	His	Ser									
		195				200				205														
Gly	Glu	Arg	Pro	Phe	Ser	Cys	Gly	Gln	Cys	Gln	Ala	Arg	Phe	Ser	Gln									
		210				215				220														
Arg	Arg	Tyr	Leu	Leu	Gln	His	Gln	Phe	Ile	His	Thr	Gly	Glu	Lys	Pro									
225					230				235															
Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Arg	Gln	Arg	Gly	Ser	Leu									
				245				250																
Ala	Ile	His	Arg	Arg	Ala	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ala	Cys	Ser									
		260				265				270														
Asp	Cys	Lys	Ser	Arg	Phe	Thr	Tyr	Pro	Tyr	Leu	Leu	Ala	Ile	His	Gln									
		275				280				285														
Arg	Lys	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ser	Cys	Pro	Asp	Cys	Ser	Leu									
		290				295				300														
Arg	Phe	Ala	Tyr	Thr	Ser	Leu	Leu	Ala	Ile	His	Arg	Arg	Ile	His	Thr									
305					310				315															
Gly	Glu	Lys	Pro	Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Thr	Tyr									
				325				330																
Ser	Ser	Leu	Leu	Leu	Ser	His	Arg	Arg	Ile	His	Ser	Asp	Ser	Arg	Pro									
		340				345				350														
Phe	Pro	Cys	Val	Glu	Cys	Gly	Lys	Gly	Phe	Lys	Arg	Lys	Thr	Ala	Leu									
		355				360				365														
Glu	Ala	His	Arg	Trp	Ile	His	Arg	Ser	Cys	Ser	Glu	Arg	Arg	Ala	Trp									
		370				375				380														
Gln	Gln	Ala	Val	Val	Gly	Arg	Ser	Glu	Pro	Ile	Pro	Val	Leu	Gly	Gly									
385					390				395															
Lys	Asp	Pro	Pro	Val	His	Phe	Arg	His	Phe	Pro	Asp	Ile	Phe	Gln</										

450		455		460
Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro				
465		470		475
Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe				
	485		490	495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala				
	500		505	510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys				
	515		520	525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu				
	530		535	540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val				
545		550		555
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro				
	565		570	575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser				
	580		585	590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg				
	595		600	605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro				
	610		615	620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val				
625		630		635
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg				
	645		650	655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln				
	660		665	670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg				
	675		680	685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu				
	690		695	700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro				
705		710		715
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln				
	725		730	735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly				
	740		745	750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro				
	755		760	765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly				
	770		775	780

<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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120

tactggatcc gaggcggac ctgagtgga atcatcaaga ctggaggcta caaggtcagc

180

gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
 240
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 300
 cactcactgt cccacagggg gctcaaagag tgggccagaa atgtcctggc cccgtacgcg
 360
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 420
 aagaaggcgc tcatacaggca ctccaccccc tcatagaccg gcagactggg actgcgggtc
 480
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 540
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 720
 ccctggcccc acgtgctgag gcacctcccg cccacagtg ccctgcagtt gccaggctct
 780
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 892

<210> 3968
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 3968
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 Val Ala Arg Gln Ile Leu Pro Arg Gly Arg Gly Arg Leu Val Gly Asp
 20 25 30
 Thr Val Val Phe Lys Asp Gly Gln Tyr Trp Ile Arg Gly Arg Thr Ser
 35 40 45
 Val Asp Ile Ile Lys Thr Gly Gly Tyr Lys Val Ser Ala Leu Glu Val
 50 55 60
 Glu Trp His Leu Leu Ala His Pro Ser Ile Thr Asp Val Ala Val Ile
 65 70 75 80
 Gly Val Pro Asp Met Thr Trp Gly Gln Arg Val Thr Ala Val Val Thr
 85 90 95
 Leu Arg Glu Gly His Ser Leu Ser His Arg Glu Leu Lys Glu Trp Ala
 100 105 110
 Arg Asn Val Leu Ala Pro Tyr Ala Val Pro Ser Glu Leu Val Leu Val
 115 120 125
 Glu Glu Ile Pro Arg Asn Gln Met Gly Lys Ile Asp Lys Lys Ala Leu
 130 135 140
 Ile Arg His Phe His Pro Ser
 145 150

<210> 3969
 <211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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120
ggattgcaac tcggggagggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgacccgc
180
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240
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660
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720
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780
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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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20      25      30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35      40      45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50      55      60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65      70      75      80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 3971
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 ctggggaacg ggtaatcaga gaaaccctca ctcatagggt ggtgcccttt atgcagagac
 180
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 420
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 tgctccacct acttgagtc cagatattac agggcccctg agatcatcct tggtttacca
 180
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 360
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag
 420
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 780
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<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

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Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
			35				40					45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
	50					55				60					
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65				70					75					80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
				85					90					95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

100 105 110
 Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu
 115 120 125
 Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys
 130 135 140
 Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala
 145 150 155 160
 Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu
 165 170 175
 Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr
 180 185 190
 Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro
 195 200 205
 Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val
 210 215 220
 Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met
 225 230 235 240
 Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala
 245 250 255
 Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr
 260 265 270
 Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Gln
 275 280 285
 Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro
 290 295 300
 Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala
 305 310 315 320
 Leu Gln Ala Ser Pro Phe Thr Arg
 325

<210> 3975

<211> 593

<212> DNA

<213> Homo sapiens

<400> 3975

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 120
 gctcttgggg gctcaaggga gcctgggcct ctgccagcct gcaagctgcc tccaactctc
 180
 agtcaggatt tggatgcccc cagtgcagtc ctgaggccgc cgccccccat cctactatcc
 240
 tgcttctgag gcgtctcgga atcataggcc tcccgtagaa ggggagcagc aggcgaggtc
 300
 tgcgtgagcc ccacagatgc ccgctcgctt gccagactta aaagtctgtg cccctccccg
 360
 accaccaggg taccagatc ccaggcggct cagccaggcc cagagcccca agagctgggc
 420
 tgttctctcc aactgggatc tggggtaggg gctgctcccc caagtccctg ggggactgtc
 480
 tgggacatcc aggccctgtc ttcttgtctt aaccactcac aacagagaac acgatgttct
 540

gtccacgaaa gaaggcccca cacttctccc atccggcctc cacgtaaacg cgt
593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

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Met Gly Phe Ser Leu Leu Glu Gly Pro Ala Ser Leu Gln Pro Pro His
 1           5           10          15
Arg Glu Ser Leu Pro Leu His Ser Leu Pro Arg Asp Gly Ser Trp Gly
      20           25           30
Leu Lys Gly Ala Trp Ala Ser Ala Ser Leu Gln Ala Ala Ser Asn Ser
      35           40           45
Gln Ser Gly Phe Gly Lys Pro Gln Cys Ser Pro Glu Ala Ala Ala Pro
      50           55           60
His Pro Thr Ile Leu Leu Leu Arg Arg Leu Gly Ile Ile Gly Leu Pro
      65           70           75           80
Trp Lys Gly Ser Ser Arg Arg Gly Leu Arg Glu Pro His Arg Cys Pro
      85           90           95
Leu Ala Cys Gln Thr
      100

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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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<211> 667

<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3982

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<212> DNA

<213> Homo sapiens

<400> 3983

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<212> PRT

<213> Homo sapiens

<400> 3984

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<211> 955
<212> PRT
<213> Homo sapiens

<400> 3990
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35 40 45
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Pro Arg Val Tyr Gln Asn Arg Asp Phe Arg Gly His Asn Arg Gly Tyr
65 70 75 80
Arg Arg Pro Tyr Tyr Phe Arg Gly Arg Asn Arg Gly Phe Tyr Pro Trp
85 90 95
Gly Gln Tyr Asn Arg Gly Gly Tyr Gly Asn Tyr Arg Ser Asn Trp Gln
100 105 110
Asn Tyr Arg Gln Ala Tyr Ser Pro Arg Arg Gly Arg Ser Arg Ser Arg
115 120 125
Ser Pro Lys Arg Arg Ser Pro Ser Pro Arg Ser Arg Ser His Ser Arg
130 135 140
Asn Ser Asp Lys Ser Ser Ser Asp Arg Ser Arg Arg Ser Ser Ser Ser
145 150 155 160
Arg Ser Ser Ser Asn His Ser Arg Val Glu Ser Ser Lys Arg Lys Ser
165 170 175
Ala Lys Glu Lys Lys Ser Ser Ser Lys Asp Ser Arg Pro Ser Gln Ala
180 185 190
Ala Gly Asp Asn Gln Gly Asp Glu Val Lys Glu Gln Thr Phe Ser Gly
195 200 205
Gly Thr Ser Gln Asp Thr Lys Ala Ser Glu Ser Ser Lys Pro Trp Pro
210 215 220
Asp Ala Thr Tyr Gly Thr Gly Ser Ala Ser Arg Ala Ser Ala Val Ser
225 230 235 240
Glu Leu Ser Pro Arg Glu Arg Ser Pro Ala Leu Lys Ser Pro Leu Gln
245 250 255
Ser Val Val Val Arg Arg Arg Ser Pro Arg Pro Ser Pro Val Pro Lys
260 265 270
Pro Ser Pro Pro Leu Ser Ser Thr Ser Gln Met Gly Ser Thr Leu Pro
275 280 285
Ser Gly Ala Gly Tyr Gln Ser Gly Thr His Gln Gly Gln Phe Asp His
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Gly Ser Gly Ser Leu Ser Pro Ser Lys Lys Ser Pro Val Gly Lys Ser
305 310 315 320
Pro Pro Ser Thr Gly Ser Thr Tyr Gly Ser Ser Gln Lys Glu Glu Ser
325 330 335
Ala Ala Ser Gly Gly Ala Ala Tyr Thr Lys Arg Tyr Leu Glu Glu Gln
340 345 350
Lys Thr Glu Asn Gly Lys Asp Lys Glu Gln Lys Gln Thr Asn Thr Asp

355 360 365
 Lys Glu Lys Ile Lys Glu Lys Gly Ser Phe Ser Asp Thr Gly Leu Gly
 370 375 380
 Asp Gly Lys Met Lys Ser Asp Ser Phe Ala Pro Lys Thr Asp Ser Glu
 385 390 395 400
 Lys Pro Phe Arg Gly Ser Gln Ser Pro Lys Arg Tyr Lys Leu Arg Asp
 405 410 415
 Asp Phe Glu Lys Lys Met Ala Asp Phe His Lys Glu Glu Met Asp Asp
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 Gln Asp Lys Asp Lys Ala Lys Gly Arg Lys Glu Ser Glu Phe Asp Asp
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 450 455 460
 Glu Glu Lys Ser Gly Lys Trp Glu Gly Leu Val Tyr Ala Pro Pro Gly
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 Arg Gly Phe Val Pro Glu Lys Asn Phe Arg Val Thr Ala Tyr Lys Ala
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 Arg Asp Lys Leu Gly Ala Lys Gly Asp Phe Pro Thr Gly Lys Ser Ser
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 Asp Glu Asp Leu Ala Arg Pro Ser Gly Leu Leu Ala Gln Glu Arg Lys
 580 585 590
 Leu Cys Arg Asp Leu Val His Ser Asn Lys Lys Glu Gln Glu Phe Arg
 595 600 605
 Ser Ile Phe Gln His Ile Gln Ser Ala Gln Ser Gln Arg Ser Pro Ser
 610 615 620
 Glu Leu Phe Ala Gln His Ile Val Thr Ile Val His His Val Lys Glu
 625 630 635 640
 His His Phe Gly Ser Ser Gly Met Thr Leu His Glu Arg Phe Thr Lys
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 Tyr Leu Lys Arg Gly Thr Glu Gln Glu Ala Ala Lys Asn Lys Lys Ser
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 675 680 685
 His Gly Leu Ala His Asp Glu Met Lys Ser Pro Arg Glu Pro Gly Tyr
 690 695 700
 Lys Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp
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 770 775 780
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Phe	Arg	Lys	Ser	Ser	Thr	Ser	Pro	Lys	Trp	Ala	His	Asp	Lys	Phe	Ser								
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Gly	Glu	Glu	Gly	Glu	Ile	Glu	Asp	Asp	Glu	Ser	Gly	Thr	Glu	Asn	Arg								
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<211> 381
<212> DNA
<213> Homo sapiens
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180
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<210> 3992
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<212> PRT
<213> Homo sapiens
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<400> 3992
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Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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      35              40              45
Pro  Gln  Cys  Val  Ser  Arg  Phe  Val  Arg  Pro  Pro  Pro  Ser  Ala  Pro  Glu
   50              55              60
Pro  Ala  Pro  Pro  Tyr  Leu  Asp  His  Tyr  Pro  Pro  Tyr  Leu  Gln  Glu  Arg
65              70              75              80
Val  Val  Asn  Ser  Gln  Tyr  Gly  Thr  Gln  Pro  Gln  Gln  Tyr  Pro  Pro  Ile
      85              90              95
Tyr  Pro  Ser  His  Tyr  Asp  Gly  Arg  Arg  Val  Tyr  Pro  Ala  Pro  Ser  Tyr
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<210> 3993

<211> 394

<212> DNA

<213> Homo sapiens

<400> 3993

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<213> Homo sapiens

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      20              25              30
Thr  Glu  Gly  Ala  Asn  Ile  Asn  Lys  Pro  Asp  Cys  Glu  Gly  Glu  Thr  Pro
      35              40              45
Ile  His  Lys  Ala  Ala  Arg  Ser  Gly  Ser  Leu  Glu  Cys  Ile  Ser  Ala  Leu
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<210> 3995

<211> 715

<212> DNA

<213> Homo sapiens

<400> 3995

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<210> 3996

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Ser	Ser	Ser	Val	Arg	Arg	Thr	Gln	Ala	Ile	Arg	Arg	Arg	His	Asn	Ala
		35				40						45			
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	50					55					60				
Ser	Leu	Gln	Glu	Ala	Gln	Arg	Gly	Arg	Ala	Ala	Ser	His	Ser	Arg	Ala
65					70					75				80	
Leu	Thr	Leu	Pro	Ser	Ala	Leu	His	Phe	Ala	Ser	Ser	Leu	Leu	Leu	Thr
			85					90						95	
Arg	Ala	Gly	Ala	Asn	Val	His	Glu	Ala	Cys	Thr	Phe	Asp	Asp	Thr	Ser
			100					105					110		
Glu	Gly	Ala	Val	His	Tyr	Phe	Tyr	Asp	Glu	Ser	Gly	Val	Arg	Arg	Ser
		115					120					125			
Tyr	Thr	Phe	Gly	Leu	Ala	Gly	Gly	Gly	Tyr	Glu	Asn	Pro	Val	Gly	Gln
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Gln	Gly	Glu	Gln	Thr	Ala	Asn	Gly	Ala	Trp	Asp	Arg	His	Ser	His	Ser
145					150					155				160	
Ser	Ser	Phe	His	Ser	Ala	Asp	Val	Pro	Glu	Ala	Thr	Gly	Gly	Leu	Asn
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	180		185		190										
Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<210> 3997

<211> 7484

<212> DNA

<213> Homo sapiens

<400> 3997

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 cacacctctg gctggaaagt ggtctattcc ggggacacca tgccctgcga ggctctggtc
 1620
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 1680
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 1740
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 1800
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 1860
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 1920
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 1980
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 2040
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 2100
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 2160
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 2220
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 2280
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 2340
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 2400
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 2546

<210> 4000

<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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 20           25           30
Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala Ala Phe Val Val Val
 35           40           45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
 50           55           60
Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65           70           75           80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85           90           95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
115          120          125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
180          185          190
Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
195          200          205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
210          215          220
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
225          230          235          240
Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
245          250          255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
260          265          270
Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
275          280          285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
290          295          300
Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
305          310          315          320
Asn Gln Leu Lys Ala Trp Leu Gln Gln Tyr His Asn Gln Cys Gln Glu
325          330          335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
340          345          350
Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
385          390          395          400
Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
405          410          415
Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

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				420				425					430				
Glu	Glu	Glu	Ala	Val	Glu	Lys	Thr	His	Ser	Thr	Thr	Ser	Gln	Ala	Ile		
			435				440					445					
Ser	Val	Gly	Met	Arg	Met	Asn	Ala	Glu	Phe	Ile	Met	Leu	Asn	His	Phe		
			450			455					460						
Ser	Gln	Arg	Tyr	Ala	Lys	Val	Pro	Leu	Phe	Ser	Pro	Asn	Phe	Ser	Glu		
465					470					475					480		
Lys	Val	Gly	Val	Ala	Phe	Asp	His	Met	Lys	Val	Cys	Phe	Gly	Asp	Phe		
				485				490						495			
Pro	Thr	Met	Pro	Lys	Leu	Ile	Pro	Pro	Thr	Glu	Ser	Pro	Val	Cys	Trp		
			500				505						510				
Arg	His	Arg	Gly	Asp	Gly	Gly	Ala	Gln	Gly	Glu	Ala	Gly	Ala	Ala	Ala		
			515				520					525					
Gly	Ala	Gly	Gly	Pro	Pro	Val	Gln	Gly	Ala	Gly	Arg	Arg	Pro	Gly	Gly		
			530			535					540						
Trp	Gly	Ala	Ser	Ala	Glu	Ala	Gly	Pro	His	Arg	Gly	Ala	Thr	Gly	Gln		
545					550				555						560		
Glu	Gly	Gln	Ser	Pro	Val	Lys	Ile	Trp	Glu	Thr	Leu	Asn	Ser	Glu	Gly		
				565				570						575			
Cys	Val	Ser	Ser	Ala	Pro	Arg	Thr	His	Pro	Tyr	Leu	Pro	Ser	Leu	Leu		
			580				585						590				
Val	Glu	Ala	Glu	Glu	His	Gly	Pro	Pro	Gly	Gly	Ser	Ser	Gly				
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<210> 4001
<211> 1251
<212> DNA
<213> Homo sapiens
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<400> 4001
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120
gtcatggcca ccgaccagga ctctactcc accagcagca cggaggagga gctggagcag
180
ttcagcagcc ccagcgtgaa gaagaagccc tccatgatcc tgggcaaggc tcggcaccgg
240
ctgagctttg ccagtttcag cagcatgttc cacgctttcc tctccaacaa ccgcaagctg
300
tacaagaagg tggtgaggct ggcgcaggac aagggtcgt actttggcag cctggtgcag
360
gactacaagg tgtacagcct ggagatgatg gcgcgccaga cctccagcac ggagatgctg
420
caggagattc gcaccatgat gaccagctc aagagctacc tgctgcagag caccgagctc
480
aaggccctgg tggaccccg cctgcactcc gaggaggagc tcgaagcaat tgtagagtct
540
gccttgtaca aatgtgtcct gaagccctg aaggaagcca tcaactcatg cctgcatcag
600
atccacagca aggatggttc gctgcagcag ctcaaggaga accagttagt gatcctggcc
660
accaccacca ctgacctagg tgtgaccacc agcgtgccgg aggtgcccac gatggagaag
720

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atcctgcaga agttcaccag catgcacaag gcctactcac ctgagaagaa gatctccatc
 780
 ctgctcaaga cctgcaaact catctacgac tccatggccc tcggcaaccc agggaagccc
 840
 tatggggcgg atgacttcct gcctgtgctc atgtatgtgc tggcccgcag caacctcacg
 900
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 960
 gagggttcct actatctgac caccacctac gggggccctgg agcacatcaa gagctacgac
 1020
 aagatcacgg tgaccgcgga gctgagtgtg gaggtgcagg actccatcca ccgctggggag
 1080
 cgccggcgta ctctcaacaa ggcccggggc tcccgtcctt ccgtacagga cttcatctgc
 1140
 gtgtcgtacc tggagcccga gcagcaggcg cggacgctgg cgtcgcggggc ggacaccag
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 1251

<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

Glu	Ser	Pro	Ala	Ser	Gln	Ala	Gly	Thr	Gln	His	Pro	Pro	Ala	Gln	Pro
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Thr	Ala	His	Ser	Gln	Ser	Ser	Pro	Glu	Phe	Lys	Gly	Ser	Leu	Ala	Ser
			20					25					30		
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35					40					45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
	50					55					60				
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
65					70				75					80	
Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
			85						90					95	
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
			100					105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115					120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
	130					135					140				
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145					150					155				160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165						170					175	
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
		180						185					190		
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
		195					200					205			
Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
	210					215						220			
Asp	Leu	Gly	Val	Thr	Thr	Ser	Val	Pro	Glu	Val	Pro	Met	Met	Glu	Lys

[illegible]

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<210> 4003
<211> 581
<212> DNA
<213> Homo sapiens
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<400> 4003
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120
cgagcaaaag atgtgataat accagcaaag ccacctgtca gctttttctc cttgaggtct
180
ccagtccttg acctcttcca ggggcagctg gattatgcag agtacgttcg acgggattca
240
gaggtggtac tgctcttctt ctatgccctt tgggtgtggac agtccatcgc tgccagggca
300
gaaattgagc aagcagcaag tcggctttca gatcaggtgt tgtttgtggc aattaactgt
360
tggtggaacc aggggaaatg cagaaaacag aaacacttct tttattttcc tgtaatatat
420
ctgtatcatc ggagtttttg accaatcgaa tacaaaggcc cccatgagtg ctgtttacat
480
tgagaagttt gtccgccggg tgatgaaacc acttctctac atcccatctc aatcagaatt
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581

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<210> 4004

<211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4004

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Xaa Arg Leu Arg Arg Gly Leu Arg Gly Ala Phe Leu Met Ala Arg Gln
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Arg Pro Glu Leu Leu Cys Gly Ala Val Ala Leu Gly Cys Ala Leu Leu
      20           25           30
Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro
      35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
      50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
      85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
      100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
      115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
      130          135          140
Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
145          150          155          160

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<210> 4005
 <211> 666
 <212> DNA
 <213> Homo sapiens

<400> 4005

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120
acggaagata tgccaatgtt tgagcctaaa atgacacgct ctaaactgaa ggaagtagtg
180
gaaaaaggaa tggtaattcc aacatggaat atttcaccaa ttaagaaggc caatgaaatt
240
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300
cagccggatg atgaagaaga agatgaaact gctgaagaga gcttattgga aagtgatgtt
360
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420
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480
gccatcaggc acatcagtgc tgaggtagtg cccatggggc ccccgcccc tccaaagccg
540
aaacagacca gagatagtac tttcatggag aagttacatg cggtagatga ggagctggct
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660

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acgcgt
666

<210> 4006
<211> 222
<212> PRT
<213> Homo sapiens

<400> 4006
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Val Arg Asn Ile Leu His Glu Val Ile Thr Asn Glu His Val Val Ala
20 25 30
Met Met Lys Ala Ala Ile Ser Glu Thr Glu Asp Met Pro Met Phe Glu
35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
180 185 190
His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
195 200 205
Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
210 215 220

<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

<400> 4007
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120
aattgggacc ggaaaacggt gtcgctcctc ctatgacgcg aaagtaaccg agactatcag
180
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240
cggagaatgg aaactgaaag tggaaatcag gaaaaggtaa tggaagaaga aagcactgaa
300

aagaaaaaag aagttgaaaa aaagaaacgg tcacgagtta aacaggtgct tgcagatatt
360
gctaagcaag tggacttctg gtttggggat gcaaactctc acaaggatag atttcttcga
420
gaacagatag aaaaatctag agatggatat gttgatatat cactacttgt gtcttttaac
480
aaaatgaaaa aattgactac tgatgggaag ttaattgcca gagcattgag aagttcagct
540
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600
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660
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720
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780
gcagcaaaag caattgagtt tcttaacaac ccaccagaag aagcaccaag aaaacctggc
840
atatttccta aaacagtga aaataagccc attccagcct taagagttgt ggaagagaag
900
aaaaagaaaa agaagaagaa aggccgaatg aaaaaggaag acaatatcca agccaaagaa
960
gaaaacatgg acacaagcaa caccagcatc agtaaaatga aaagatccag acccacatct
1020
gagggtctctg acattgagtc cactgaaccc caaaagcagt gctcaaagaa aaagaaaaaa
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1200
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1260
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1320
cataagaaaa aacataaaga gagacataaa atgggagaag aagttatacc attaagagtg
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1800
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1860
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1920

accaaagctg aaaagattag actggcaaag actcaacaag cgagtaaaca tataagattt
 1980
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 2040
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 2100
 aaagaaatat ctttgttcct taacttgtaa ataagacttt tttctagaga caaatatgat
 2160
 gtataaccaca atttttctta aacattttat ttgttgaaat tatcttagat gtcagtgtca
 2220
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 2280
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 2313

<210> 4008
 <211> 290
 <212> PRT
 <213> Homo sapiens

<400> 4008
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 35 40 45
 Glu Lys Asp Thr Gly Asp Leu Lys Asp Ser Ser Leu Lys Thr Lys
 50 55 60
 Arg Lys His Lys Lys Lys His Lys Glu Arg His Lys Met Gly Glu Glu
 65 70 75 80
 Val Ile Pro Leu Arg Val Leu Ser Lys Ser Glu Trp Met Asp Leu Lys
 85 90 95
 Lys Glu Tyr Leu Ala Leu Gln Lys Ala Ser Met Ala Ser Leu Lys Lys
 100 105 110
 Thr Ile Ser Gln Ile Lys Ser Glu Ser Glu Met Glu Thr Asp Ser Gly
 115 120 125
 Val Pro Gln Asn Thr Gly Met Lys Asn Glu Lys Thr Ala Asn Arg Glu
 130 135 140
 Glu Cys Arg Thr Gln Glu Lys Val Asn Ala Thr Gly Pro Gln Phe Val
 145 150 155 160
 Ser Gly Val Ile Val Lys Ile Ile Ser Thr Glu Pro Leu Pro Gly Arg
 165 170 175
 Lys Gln Val Arg Asp Thr Leu Ala Ala Ile Ser Glu Val Leu Tyr Val
 180 185 190
 Asp Leu Leu Glu Gly Asp Thr Glu Cys His Ala Arg Phe Lys Thr Pro
 195 200 205
 Glu Asp Ala Gln Ala Val Ile Asn Ala Tyr Thr Glu Ile Asn Lys Lys
 210 215 220
 His Cys Trp Lys Leu Glu Ile Leu Ser Gly Asp His Glu Gln Arg Tyr
 225 230 235 240
 Trp Gln Lys Ile Leu Val Asp Arg Gln Ala Lys Leu Asn Gln Pro Arg
 245 250 255
 Glu Lys Lys Arg Gly Thr Glu Lys Leu Ile Thr Lys Ala Glu Lys Ile

260 265 270
 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu
 275 280 285
 Tyr Asp
 290

<210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens

<400> 4009
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 120
 tcagaagaac cagtagttta taatccaaca acagctgcct tcatctgtga ctcacttggt
 180
 aatgaaaaaa ccataggcag tctcctaata gagttttact gttctgaaaa cacttctgtc
 240
 cctaacgaat ctaacaagat tcttggttaata aaagatgtac ctcagaaaacc aggaggtgaa
 300
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 360
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 420
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 480
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 540
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 660
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<210> 4010
 <211> 225
 <212> PRT
 <213> Homo sapiens

<400> 4010
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 Ser Val Gln Asp Pro Ala Ser Ser Pro Ser Ile Gln Asp Gly Gly Leu
 20 25 30
 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

85						90						95			
Pro	Gly	Gly	Glu	Thr	Thr	Pro	Ser	Val	Thr	Asp	Leu	Leu	Asn	Tyr	Phe
100						105						110			
Leu	Ala	Pro	Glu	Ile	Leu	Thr	Gly	Asp	Asn	Gln	Tyr	Tyr	Cys	Glu	Asn
115						120						125			
Cys	Ala	Ser	Leu	Gln	Asn	Ala	Glu	Lys	Thr	Met	Gln	Ile	Thr	Glu	Glu
130						135						140			
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<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
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Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
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Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
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Val	Phe	Glu	Lys	Asp	Phe	Gly	Pro	Ile	Asp	Pro	Glu	Cys	Thr	Cys	Pro
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Phe	Pro	Asp	Phe	Val	Arg	Asp	Phe	Met	Gly	Ala	Met	Tyr	Gly	Asp	Pro
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 <212> DNA
 <213> Homo sapiens

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<211> 473

<212> PRT

<213> Homo sapiens

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Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
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Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
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Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
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<211> 823

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 <212> DNA
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<211> 480

<212> PRT

<213> Homo sapiens

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Ser	Ser	Ser	Val	Asp	Phe	Asp	Gln	Arg	Asp	Asn	Gly	Phe	Cys	Ser	Trp				
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Leu	Thr	Ala	Ile	Phe	Arg	Ile	Lys	Asp	Asp	Glu	Ile	Arg	Asp	Lys	Cys				
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Leu	Leu	Val	Val	Val	Gly	Val	Leu	Ser	Val	Gly	Ile	Val	Leu	Pro	Val				
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Cys	Cys	Val	Val	Arg	Gly	Cys	Glu	Gln	Val	Glu	Ala	Ile	Glu	Tyr	Tyr				
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Glu	Thr	Ile	Thr	Ala	Ile	Ile	Leu	Lys	Asp	Phe	Asn	Val	Cys	Lys	Cys				
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<212> DNA

<213> Homo sapiens

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<210> 4024

<211> 1690

<212> PRT

<213> Homo sapiens

<400> 4024

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Ser Tyr Asp Arg Leu Arg Val Phe Asn Trp Ile Pro Arg Arg Ser Ile			
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<211> 908

<212> DNA

<213> Homo sapiens

<400> 4025

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<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

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			20					25				30			
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Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
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Phe	Leu	Lys	His	Gln	Ser	Leu	His	Ala	Gly	Glu	Lys	Leu	Glu	Glu	Cys		
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<211> 941

<212> DNA

<213> Homo sapiens

<400> 4027

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<212> PRT

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<400> 4028

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			20					25					30		
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
		35					40					45			
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Pro	Glu	Glu	Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu
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Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
			165					170						175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
		180						185					190		
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
	195						200					205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
	210					215					220				
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<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120
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 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
 240
 ggtggggcgt gctggcgcg cccgccaaca tggcgctggt cggggacagc cgtgtctcgg
 300
 ccatcttcgt cggcaaaaac gtggtggcgc tcgccaccaa ggcctgcacc tnntcctgga
 360
 gtaccgcccgc caggtgcgcg acttcccnng ccgcctgcgc tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgccgccc ccgcgcgcgc cgctgcacgg cccgcctggg
 480
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 540
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 600
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 720
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 780
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 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

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Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
			20					25					30		
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala
			35				40					45			
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
			50				55				60				
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65					70					75				80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
				85					90					95	
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
				100					105					110	
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[illegible]

<210> 4031

<211> 1406

<212> DNA

<213> Homo sapiens

<400> 4031

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120	gagtttataaa	aggaggagat	gaggaagcta	caaaaggaac	gtaaagtttt
180	actacagctg	caagaacttt	tccagataaa	aaggaacgtg	aagaaatata
240	cagcaaataag	cagattttacg	ggaagatttg	aaaagaaagg	agaccaaata
300	cacagccgtc	tcagaagcca	gatacaaata	ttagtcagag	agaacacaga
360	gaaataaaaag	tgatggaaaag	attccgactg	gatgcctgga	agagagcaga
420	agcagcctcg	aggtggagaa	gaaggacaag	cttgccaaca	catctgttcg
480	agtcagattt	cttcaggaac	ccaggtagaa	aaatacaaga	aaaattatct
540	ggcaatccac	ctcgaagatc	caagtctgca	cctcctcgta	atttaggcaa
600	ggacaggtcg	cctctcccag	ggagccactt	gaaccactga	acttcccaga
660	aaagaggagg	aggaagacca	agacatacag	ggagaaatca	gtcatcctga
720	gaaaagggtt	ataagaatgg	gtgccgtgtt	atactgtttc	ccaatggaac
780	gtgagtgacg	atgggaagac	catcactgtc	actttcttta	atggtgacgt
840	atgccagacc	aaagagtgat	ctactactat	gcagctgccc	agaccactca
900	ccggagggac	tggaagtctt	acattttctc	agtggacaaa	tagaaaaaca
960	ggaagaaaaag	aaatcacgtt	tcttgaccag	actgttaaaa	acttatttcc
1020	gaagaaagca	ttttcccaga	tggtacaatt	gtcagagtac	aacgtgatgg
1080	atagagttta	ataatggcca	aagagaacta	catactgccc	agttcaagag
1140	ccagatggca	ctgttaaaaac	cgtatatgca	aacgggtcatc	aagaaacgaa
1200					gtacagatcc

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac
 1320
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 1380
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 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
		20					25						30		
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
		35				40						45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50				55						60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65				70					75					80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85					90					95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
			100					105					110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130				135					140					
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145				150					155					160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165					170						175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180						185					190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210				215						220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225				230					235					240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245					250					255		
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
		260					265						270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275					280					285				
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290				295						300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

305 310 315 320
 Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
 325 330 335
 Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
 340 345 350
 Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
 355 360 365
 Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
 370 375 380
 Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
 385 390 395 400
 Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
 405 410 415
 Glu Leu

<210> 4033
 <211> 487
 <212> DNA
 <213> Homo sapiens

<400> 4033
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 120
 tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt
 180
 gtectctctg ggaagcagct gaataatgaa cactgggatt ttcccaggct ggcttctcac
 240
 tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
 300
 aacttccacg gccggccctc aatggcttcc tttctctccc acaagagcgc tgggccaagc
 360
 cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgtca
 420
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 480
 ccagtcc
 487

<210> 4034
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 4034
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 Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
 20 25 30
 Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
 35 40 45
 Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

50		55		60
Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro				
65	70		75	80
Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser				
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<210> 4035

<211> 343

<212> DNA

<213> Homo sapiens

<400> 4035

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120
tcctatggga gggacaaact ctcagaaaat agcaagagta ttttgaatc ctatctgagg
180
tataaacact cagaacctca tagcagtgtt caggaatcct atgtgagga caaacattca
240
gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
300
agtgttctgg aatccttttt ttttttgaag ctttcaatct ctt
343

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<210> 4036

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4036

Xaa	Leu	Asn	Ser	Ser	Val	Met	Glu	Phe	His	Val	Arg	His	Lys	His	Ser
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Asp	Asn	Pro	Ser	Asn	Val	Leu	Glu	Ser	Tyr	Val	Arg	Asp	Lys	His	Ser
			20					25					30		
Asp	Pro	Ser	Ser	Asn	Val	Leu	Glu	Ser	Tyr	Gly	Arg	Asp	Lys	Leu	Ser
			35					40					45		
Glu	Asn	Ser	Lys	Ser	Ile	Leu	Glu	Ser	Tyr	Leu	Arg	Tyr	Lys	His	Ser
			50					55				60			
Glu	Pro	His	Ser	Ser	Val	Gln	Glu	Ser	Tyr	Val	Arg	Asp	Lys	His	Ser
65					70					75				80	
Asp	His	Ser	Arg	Ser	Ile	Leu	Glu	Ser	Tyr	Leu	Arg	Asn	Lys	His	Ser
				85					90					95	
Asp	Asn	Arg	Ser	Ser	Val	Leu	Glu	Ser	Phe	Phe	Phe	Leu	Lys	Leu	Ser
				100				105						110	
Ile	Ser														

<210> 4037

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4037

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 120
 ggaggagaag gggttgggtct tgctgtctca gggcggcaga ggcagaagag aatctgagca
 180
 tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtcctgc
 240
 tggaatgatg cctttacaca tctgtctgat ctgattgctc cactgttttc tgacttctct
 300
 tccctttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtac
 360
 agatacaact gcatggctcc ttccttgccg caagagaggt ttgcctttaa gatctcacca
 420
 aagcccagca aaccactgag gccttgattt cagctgagca gcaagaatga agccagtgga
 480
 atgggtggccc cggtgtgga ggagaagaag gtgaaaaagc ggggtgtcctt cgcagacaac
 540
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 600
 ccattcaaca tcaccgagct cctagacaac attgtgagct tgacgacagc agagagcgag
 660
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 720
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 741

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

Met	Ala	Val	Asp	Ile	Glu	Tyr	Arg	Tyr	Asn	Cys	Met	Ala	Pro	Ser	Leu
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Arg	Gln	Glu	Arg	Phe	Ala	Phe	Lys	Ile	Ser	Pro	Lys	Pro	Ser	Lys	Pro
			20					25					30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
			35				40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
	50					55				60					
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
65					70				75					80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
				85				90					95		
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100				105					110			
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
		115					120					125			
Ala	Asp	His	Val	Cys	Leu										

<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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 120
 gagcgaggag ccctcgcacg cgctagtctg cgagtgagcg ctcagcccgg cacctgttcc
 180
 tccagcgccg ccgccttccc acccctcggg cccgcgcccgc tcgcggcgcc cgcccgttcc
 240
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 300
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 360
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 420
 cgggtcatgtg cgtgctctca ctcaccgtgg tcttcggcat cttcttctct ggctgcaatc
 480
 tgctcatcaa gtccgagggc atgatcaact tcctcgtgaa ggaccggagg ccgtctaagg
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 600
 cccacgcctg ccacttttgc tagcccggtg gtgcccctca ctatcagaga ctgggcgaag
 660
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 720
 ttctccctcg ccctctgaaa gtcctcatgc ctggcagtcg gaggagagcg ccagactct
 780
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 840
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 900
 aagctctggg ggcaggtgga gaggcgggc aggggagaga ccagcggca ctgatcgcct
 960
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 1080
 gataaatacc tttgattgta acgtgccgtt ttaagagggt ttgtgtttgt ttgcttgaat
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 1200
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 1260
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 1320
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 1380
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 1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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120
tgtgttgcca attcagatga acagcttggt gagatgtttc tggaagaaaa aatcccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
tttttgggaa gcgccttgaa gaacaaagga gttcagcctc ttttagatgc tgttttagaa
300
tacctcccaa atccatctga agtcagaac tatgctattc tcaataaaga ggatgactca
360
aaagagaaaa ccaaaatcct aatgaactcc agtagagaca attccacccc atttgtaggc
420
ctggctttta aactggagggt aggtcgattt ggacaattaa cttatgttcg cagttatcag
480
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573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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 Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Thr
 20 25 30
 Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
 35 40 45
 Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
 50 55 60
 Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
 65 70 75 80
 Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
 85 90 95
 Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
 100 105 110
 Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
 115 120 125
 Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
 130 135 140
 Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
 145 150 155 160
 Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
 165 170 175
 Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
 180 185 190

<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 tagcttccaa gggacaaggt gtcaacaatg tgccgaaaag ggatagttgg ccagtggggc
 120
 ctcccaaaaa aagacccaaa agttaaggt gtccaatcag cagctgtaca agcttttctt
 180
 aaaagaaaag aagaggagct gagacgaaaa gccttagagg agaaaaggag aaaagaggaa
 240
 ctagtgaaaa agcgaattga gctcaaacat gacaagaaag caagagctat ggccaagagg
 300
 acaaaggata atttccatgg ttacaatggg attcctattg aggaaaagtc aaagaagagg
 360
 caggcaacag aaagccatac cagccaagga accgaccgag agtatgaaat ggaagaagag
 420
 aatgaattcc tcgagtacaa tcacgcagag tcagagcagg agtatgagga agagcaagaa
 480
 cctcccaaag ttgaaagcaa accaaaggct tcccttaaag gtgccccacc acccatgaac
 540
 ttactgatt tactcaggct ggctgagaaa aagcagtttg aaccagtgga aatcaaggta
 600

gtgaagaaat cagaagagcg acctatgacc gcagaagaac ttagggagcg agaattcctt
 660
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 720
 aaaaaggcac ctctcggacg gaag
 744

<210> 4044
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 4044
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 20 25 30
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 35 40 45
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 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
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 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
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<213> Homo sapiens

<400> 4046

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Pro Lys Val Leu Cys Leu His Leu Lys Arg Phe His Trp Thr Ala Tyr
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Leu Arg Asn Lys Val Asp Thr Tyr Val Glu Phe Pro Leu Arg Gly Leu
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Asp Met Lys Cys Tyr Leu Leu Asp Pro Glu Asn Ser Gly Pro Glu Ser
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Cys Leu Tyr Asp Leu Ala Ala Val Val Val His His Gly Ser Gly Val
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Gly Ser Gly His Tyr Thr Ala Tyr Ala Thr His Glu Gly Arg Trp Phe
385                390                395                400
His Phe Asn Asp Ser Thr Val Thr Leu Thr Asp Glu Glu Thr Val Val
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<212> DNA

<213> Homo sapiens

<400> 4047

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720

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<212> PRT
<213> Homo sapiens

<400> 4048
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Val Ala Ile Gly Phe Thr Gly Gly Leu Val Phe Met Tyr Val Gln Cys
35 40 45
Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val
50 55 60
Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn
65 70 75 80
Phe Ser Cys Asn Val Asn Thr Asp Ile Lys Asp Ala Val Val Val Pro
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Pro Glu Val Val Ser Val
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<211> 403

<212> PRT

<213> Homo sapiens

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Ile	Val	Ser	Arg	Asp	Arg	Lys	Val	Ser	Pro	Lys	Ser	Glu	Phe	Thr	Ser
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Cys	Asn	Lys	Phe	Ile	Ala	Tyr	Ser	Thr	Val	Phe	Glu	Asp	Val	Val	Asp
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	225				230					235					240				
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Lys	Ala	Phe	Leu	Glu	His	Met	Ser	Glu	Val	Gln	Pro	Asp	Ser	Pro	Gln				
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<212> DNA

<213> Homo sapiens

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<211> 93

<212> PRT

<213> Homo sapiens

<400> 4052

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		20					25				30				
Ala	Glu	Gly	Val	Arg	Pro	Pro	Pro	Gly	Pro	Ala	Pro	Leu	Pro	Pro	Gly
		35					40				45				
Pro	Thr	Lys	Pro	Leu	Pro	Pro	Ala	Pro	Pro	Ser	Met	Gly	Ser	Asp	Ser
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Ser	Gly	Glu	Arg	Ser	Pro	Ser	Pro	Pro	Trp	Pro	Pro	Pro	Pro	Pro	Pro
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 <212> PRT
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 Glu Gly Arg Gly Gly Ser Arg His Ser Cys Pro Arg Arg Val Gly Arg
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 <212> DNA
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Pro Asp Val Ser Ser Val Ser Glu Leu Thr Asn Lys Glu Ala Ala Ser		1310
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Gln Arg Pro Leu Ser Ser Ser Ala Ser Asn Arg Leu Ser Val Ser Ser		1325
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Leu Leu Ala Ala Gly Ala Pro Met Ser Ser Ser Ala Ser Val Pro Asn		1340
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Leu Ser Ser Arg Glu Thr Ser Ser Leu Glu Ser Phe Val Arg Arg Val		1360
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Ala Asn Ile Ala Arg Thr Asn Ala Thr Asn Asn Met Asn Leu Ser Arg		1375
	1380	1385
Ser Ser Ser Asp Asn Asn Thr Asn Thr Leu Gly Arg Asn Val Met Ser		1390
	1395	1400
Thr Ala Thr Ser Pro Leu Met Gly Ala Gln Ser Phe Pro Asn Leu Thr		1405
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Ser Ser Ser Asn Val Ala Thr Ala Thr Thr Val Leu Ser Val Gly Gln		1440
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Ser Leu Ser Asn Thr Leu Thr Thr Ser Leu Thr Ser Thr Ser Ser Glu		1455
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Ser Asp Thr Gly Gln Glu Ala Glu Tyr Ser Leu Tyr Asp Phe Leu Asp		1470
	1475	1480
Ser Cys Arg Ala Ser Thr Leu Leu Ala Glu Leu Asp Asp Asp Glu Asp		1485
	1490	1495
Leu Pro Glu Pro Asp Glu Glu Asp Asp Glu Asn Glu Asp Asp Asn Gln		1500
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Glu Asp Gln Glu Tyr Glu Glu Val Met Ile Leu Arg Arg Pro Ser Leu		1520
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Gln Arg Arg Ala Gly Ser Arg Ser Asp Val Thr His His Ala Val Thr		1535
	1540	1545
Ser Gln Leu Pro Gln Val Pro Ala Gly Ala Gly Ser Arg Pro Ile Gly		1550
	1555	1560
Glu Gln Glu Glu Glu Glu Tyr Glu Thr Lys Gly Gly Arg Arg Arg Thr		1565
	1570	1575
Trp Asp Asp Asp Tyr Val Leu Lys Arg Gln Phe Ser Ala Leu Val Pro		1580
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Ala Phe Asp Pro Arg Pro Gly Arg Thr Asn Val Gln Gln Thr Thr Asp		1600

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 Ser Ile Arg Lys Asn Arg Asn Cys Ser Gln Leu Ile Ala Ala Tyr Lys
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 Ile Glu Glu Pro Leu Ala Leu Ala Ser Gly Ala Leu Pro Asp Trp Cys
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 1890 1895 1900
 Gln Leu Tyr Phe Thr Cys Thr Ser Phe Gly Ala Ser Arg Ala Ile Val
 1905 1910 1915 1920
 Trp Leu Gln Asn Arg Arg Glu Ala Thr Val Glu Arg Thr Arg Thr Thr
 1925 1930 1935
 Ser Ser Val Arg Arg Asp Asp Pro Gly Glu Phe Arg Val Gly Arg Leu
 1940 1945 1950
 Lys His Glu Arg Val Lys Val Pro Arg Gly Glu Ser Leu Met Glu Trp
 1955 1960 1965
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 1970 1975 1980
 Val Glu Phe Leu Gly Glu Glu Gly Thr Gly Leu Gly Pro Thr Leu Glu
 1985 1990 1995 2000
 Phe Tyr Ala Leu Val Ala Ala Glu Phe Gln Arg Thr Asp Leu Gly Ala
 2005 2010 2015
 Trp Leu Cys Asp Asp Asn Phe Pro Asp Asp Glu Ser Arg His Val Asp
 2020 2025 2030
 Leu Gly Gly Gly Leu Lys Pro Pro Gly Tyr Tyr Val Gln Arg Ser Cys

2035	2040	2045
Gly Leu Phe Thr Ala Pro Phe Pro Gln Asp Ser Asp Glu Leu Glu Arg		
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Ile Thr Lys Leu Phe His Phe Leu Gly Ile Phe Leu Ala Lys Cys Ile		
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Gln Asp Asn Arg Leu Val Asp Leu Pro Ile Ser Lys Pro Phe Phe Lys		2080
2085	2090	2095
Leu Met Cys Met Gly Asp Ile Lys Ser Asn Met Ser Lys Leu Ile Tyr		
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Glu Ser Arg Gly Asp Arg Asp Leu His Cys Thr Glu Ser Gln Ser Glu		
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Ala Ser Thr Glu Glu Gly His Asp Ser Leu Ser Val Gly Ser Phe Glu		
2130	2135	2140
Glu Asp Ser Lys Ser Glu Phe Ile Leu Asp Pro Pro Lys Pro Lys Pro		
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Pro Ala Trp Leu Asn Gly Ile Leu Thr Trp Glu Asp Phe Glu Leu Val		
2165	2170	2175
Asn Pro His Arg Ala Arg Phe Leu Lys Glu Ile Lys Asp Leu Ala Ile		
2180	2185	2190
Lys Arg Arg Gln Ile Leu Ser Asn Lys Gly Leu Ser Glu Asp Glu Lys		
2195	2200	2205
Asn Thr Lys Leu Gln Glu Leu Val Leu Lys Asn Pro Ser Gly Ser Gly		
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Pro Pro Leu Ser Ile Glu Asp Leu Gly Leu Asn Phe Gln Phe Cys Pro		
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Ser Ser Arg Ile Tyr Gly Phe Thr Ala Val Asp Leu Lys Pro Ser Gly		
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Met Phe Asp Phe Cys Met His Thr Gly Ile Gln Lys Gln Met Glu Ala		
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Phe Arg Asp Gly Phe Asn Lys Val Phe Pro Met Glu Lys Leu Ser Ser		
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Phe Ser His Glu Glu Val Gln Met Ile Leu Cys Gly Asn Gln Ser Pro		
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Ser Trp Ala Ala Glu Asp Ile Ile Asn Tyr Thr Glu Pro Lys Leu Gly		
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Tyr Thr Arg Asp Ser Pro Gly Phe Leu Arg Phe Val Arg Val Leu Cys		
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Gly Met Ser Ser Asp Glu Arg Lys Ala Phe Leu Gln Phe Thr Thr Gly		
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Cys Ser Thr Leu Pro Pro Gly Gly Leu Ala Asn Leu His Pro Arg Leu		
2370	2375	2380
Thr Val Val Arg Lys Val Asp Ala Thr Asp Ala Ser Tyr Pro Ser Val		
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Asn Thr Cys Val His Tyr Leu Lys Leu Pro Glu Tyr Ser Ser Glu Glu		
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Leu Asn		

<210> 4057

<211> 533

<212> DNA

<213> Homo sapiens

<400> 4057

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<210> 4058

<211> 157

<212> PRT

<213> Homo sapiens

<400> 4058

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			20					25					30		
Phe	Ser	Asn	Ile	Ser	Ser	Ile	Tyr	Gln	Phe	His	Ser	Gln	Phe	Phe	Leu
		35				40					45				
Pro	Glu	Leu	Gln	Arg	Arg	Leu	Asp	Asp	Trp	Thr	Ala	Asn	Pro	Arg	Ile
	50					55				60					
Gly	Asp	Val	Ile	Gln	Lys	Leu	Ala	Pro	Phe	Leu	Lys	Met	Tyr	Ser	Glu
65					70				75					80	
Tyr	Val	Lys	Asn	Phe	Glu	Arg	Ala	Ala	Glu	Leu	Leu	Ala	Thr	Trp	Thr
			85					90					95		
Asp	Lys	Ser	Pro	Leu	Phe	Gln	Glu	Val	Leu	Thr	Arg	Ile	Gln	Val	Arg
			100					105				110			
Leu	Gly	Glu	Gly	Trp	Ser	Gln	His	Cys	His	Ser	Gln	His	Ala	Val	Ala
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Gln	Val	Ala	Leu	Ser	Asp	Ser	Gly	His	Leu	Pro	Gly	Ser	Ala	Ala	Ser
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<210> 4059

<211> 3994

<212> DNA

<213> Homo sapiens

<400> 4059

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<210> 4060

<211> 714

<212> PRT

<213> Homo sapiens

<400> 4060

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Pro	Thr	Arg	Ala	Gly	Asn	Ser	Thr	Pro	Arg	Met	Gln	Phe	Val	Ser	Thr
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Arg	Pro	Gln	Pro	Gln	Gln	Leu	Gly	Ile	Gln	Gly	Leu	Gly	Leu	Asp	Ser
	50					55				60					
Gly	Ser	Trp	Ser	Trp	Ala	Gln	Ala	Leu	Pro	Pro	Glu	Glu	Val	Cys	His
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Gln	Ala	Gln	Glu	Trp	Asp	Met	Asp	Ala	Arg	Arg	Pro	Met	Pro	Phe	Gln
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Phe	Pro	Pro	Phe	Pro	Asp	Arg	Ala	Pro	Val	Phe	Pro	Asp	Arg	Met	Met
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Arg	Glu	Pro	Gln	Leu	Pro	Thr	Ala	Glu	Ile	Ser	Leu	Trp	Thr	Val	Val
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Ala	Ala	Ile	Gln	Ala	Met	Glu	Arg	Lys	Ile	Glu	Ser	Gln	Ala	Ala	His

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Asp Cys Glu Lys Thr Ala Val Glu Phe Gly Asn Gln Leu Glu Gly Lys
180          185          190
Trp Ala Val Leu Gly Thr Leu Leu Gln Glu Tyr Gly Leu Leu Gln Arg
195          200          205
Arg Leu Glu Asn Val Glu Asn Leu Leu Arg Asn Arg Asn Phe Trp Val
210          215          220
Leu Arg Leu Pro Pro Gly Ser Lys Gly Glu Ala Pro Lys Val Pro Val
225          230          235          240
Thr Phe Val Asp Ile Ala Val Tyr Phe Ser Glu Asp Glu Trp Lys Asn
245          250          255
Leu Asp Glu Trp Gln Lys Glu Leu Tyr Asn Asn Leu Val Lys Glu Asn
260          265          270
Tyr Lys Thr Leu Met Ser Leu Asp Ala Glu Gly Ser Val Pro Lys Pro
275          280          285
Asp Ala Pro Val Gln Ala Glu Pro Arg Glu Glu Pro Cys Val Trp Glu
290          295          300
Gln Arg His Pro Glu Glu Arg Glu Ile Pro Met Asp Pro Glu Ala Gly
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Ala Glu Pro Leu Val Pro Ala Gln Asp Ala Ser Ser Gln Val Lys Arg
325          330          335
Glu Asp Thr Leu Cys Val Arg Gly Gln Arg Gly Leu Glu Glu Arg Ala
340          345          350
Ile Pro Thr Glu Ser Ile Thr Val Asp Ser Pro Ile Ser Ala Gln Asp
355          360          365
Leu Leu Ser Arg Ile Lys Gln Glu Glu His Gln Cys Val Trp Asp Gln
370          375          380
Gln Asp Leu Ala Asp Arg Asp Ile Pro Thr Asp Pro Asn Ser Glu Ser
385          390          395          400
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405          410          415
Pro Tyr Pro Trp Gly Pro Arg Asp Ser Met Asp Gly Glu Leu Gly Leu
420          425          430
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435          440          445
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465          470          475          480
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485          490          495
Val Leu Pro Gly Glu Arg Gly Ser Gly Glu Ala Pro Pro Gly Gly Asp
500          505          510
Arg Ser Thr Gly Gly Gly Gly Gly Asp Gly Gly Gly Gly Gly Gly Gly
515          520          525
Ala Glu Ala Gly Thr Gly Ala Gly Gly Gly Cys Gly Ser Cys Cys Pro
530          535          540
Gly Gly Leu Arg Arg Ser Leu Leu Leu His Gly Ala Arg Ser Lys Pro
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Tyr Ser Cys Pro Glu Cys Gly Lys Ser Phe Gly Val Arg Lys Ser Leu
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Ile Ile His His Arg Ser His Thr Lys Glu Arg Pro Tyr Glu Cys Ala

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Thr Tyr Ser Arg Lys Glu His Leu Gln Asn His Gln Arg Leu His Thr
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Lys Gln Asn Leu Leu Lys His Gln Arg Ile His Thr Gly Glu Arg Pro
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Tyr Thr Cys Gly Glu Cys Gly Lys Ser Phe Arg Tyr Lys Glu Ser Leu
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<210> 4061

<211> 519

<212> DNA

<213> Homo sapiens

<400> 4061

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<210> 4062

<211> 165

<212> PRT

<213> Homo sapiens

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<210> 4064

<211> 818

<212> PRT

<213> Homo sapiens

<400> 4064

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Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
          35           40           45
Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
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Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
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Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
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Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
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Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
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His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
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Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
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Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
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Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
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Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
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Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
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Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
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Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
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Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
          290          295          300
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
          305          310          315          320
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
          325          330          335
Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
          340          345          350
Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
          355          360          365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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370		375		380
Tyr Gln Arg Val Lys Asp	Leu Cys Gln Arg Ala Glu Tyr Gln Thr Ala			
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Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg				
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His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp				
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Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa				
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Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln				
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Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys				
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Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg				
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Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly				
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Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe				
675	680	685		
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr				
690	695	700		
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys				
705	710	715	720	
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro				
725	730	735		
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn				
740	745	750		
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys				
755	760	765		
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly				
770	775	780		
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu				
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805 810 815

Glu Gly

<210> 4065
<211> 696
<212> DNA
<213> Homo sapiens

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<210> 4066
<211> 210
<212> PRT
<213> Homo sapiens

<400> 4066
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Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile
35 40 45
Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
50 55 60
Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
65 70 75 80
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Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

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<211> 1800
<212> DNA
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<400> 4067

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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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			20					25				30			
Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
		35					40					45			
Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
	50					55				60					
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
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Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
				85				90					95		
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
			100					105					110		
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
		115					120					125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
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Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

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          165          170          175
Val Leu Lys Ile Thr Phe Thr Lys Asn Asn Gln Phe Gln Ala Leu
          180          185          190
Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
          195          200          205
Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
          210          215          220
Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
225          230          235          240
Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
          245          250          255
Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
          260          265          270
Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
          275          280          285
Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu
          290          295          300
Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
305          310          315          320
Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro
          325          330          335
Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly
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Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu
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His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
          405          410          415
Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
          420          425          430
Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
          435          440          445
Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
          450          455          460
Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
465          470          475          480
Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
          485          490          495
Ala Leu Ile Glu Leu His Asn His Asp Leu Gly Glu Asn His His Leu
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<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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<210> 4070

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4070

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			20					25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
		35					40					45			
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
		50				55					60				
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
65					70				75					80	
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
			85					90						95	
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
			100					105						110	

Glu

<210> 4071

<211> 601

<212> DNA

<213> Homo sapiens

<400> 4071

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 601

<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

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Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser
		20						25				30			
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
		35				40					45				
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
	50					55				60					
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
65					70					75					80
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
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Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
		100					105				110				
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
	115					120					125				
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
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Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
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<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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540
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1440
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 1740
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 1860
 attg
 1864

<210> 4074
 <211> 456
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Thr Met Pro Ser Gln Thr Val Leu Pro Pro Glu Pro Val Gln Leu
 50 55 60
 Cys Lys Ser Glu Gln Arg Pro Ser Ser Leu Pro Val Gly Pro Val Leu
 65 70 75 80
 Ala Thr Leu Gly His His Gln Thr Pro Thr Pro Asn Ser Thr Gly Ser
 85 90 95
 Gly His Ser Pro Pro Ser Ser Ser Leu Thr Ser Pro Ser His Val Asn
 100 105 110
 Leu Ser Pro Asn Thr Val Pro Glu Phe Ser Tyr Ser Ser Ser Glu Asp
 115 120 125
 Glu Phe Tyr Asp Ala Asp Glu Phe His Gln Ser Gly Ser Ser Pro Lys
 130 135 140
 Arg Leu Ile Asp Ser Ser Gly Ser Ala Ser Val Leu Thr His Ser Ser
 145 150 155 160
 Ser Gly Asn Ser Leu Lys Arg Pro Asp Thr Thr Glu Ser Leu Asn Ser
 165 170 175
 Ser Leu Ser Asn Gly Thr Ser Asp Ala Asp Leu Phe Asp Ser His Asp
 180 185 190
 Asp Arg Asp Asp Asp Ala Glu Ala Gly Ser Val Glu Glu His Lys Ser
 195 200 205
 Val Ile Met His Leu Leu Ser Gln Val Arg Leu Gly Met Asp Leu Thr
 210 215 220
 Lys Val Val Leu Pro Thr Phe Ile Leu Glu Arg Arg Ser Leu Leu Glu
 225 230 235 240
 Met Tyr Ala Asp Phe Phe Ala His Pro Asp Leu Phe Val Ser Ile Ser
 245 250 255
 Asp Gln Lys Asp Pro Lys Asp Arg Met Val Gln Val Val Lys Trp Tyr

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                260                265                270
Leu Ser Ala Phe His Ala Gly Arg Lys Gly Ser Val Ala Lys Lys Pro
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Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
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Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
305                310                315                320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
                325                330                335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
                340                345                350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
                355                360                365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
                370                375                380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
385                390                395                400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
                405                410                415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
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Tyr Gly Gly Lys Lys His Arg Ile Thr Ala Glu Ile Phe Ser Pro Asn
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Asp Lys Lys Ser Phe Cys Ser Ile
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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gtgcacatat ccagggtaaa gtcagttaac ctcgaccagt ggactcaaga acagattcag
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420
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600
ccttcttctt cgggttccag aaagggtgta ggttccatgc caactgcagg gagtgccggc
660

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780
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840
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2160
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2280

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2492

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<212> PRT
<213> Homo sapiens
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20 25 30																
Ala Gly Ile His Arg Asn Leu Gly Val His Ile Ser Arg Val Lys Ser																
35 40 45																
Val Asn Leu Asp Gln Trp Thr Gln Glu Gln Ile Gln Cys Met Gln Glu																
50 55 60																
Met Gly Asn Gly Lys Ala Asn Arg Leu Tyr Glu Ala Tyr Leu Pro Glu																
65 70 75 80																
Thr Phe Arg Arg Pro Gln Ile Asp Pro Ala Val Glu Gly Phe Ile Arg																
85 90 95																
Asp Lys Tyr Glu Lys Lys Tyr Met Asp Arg Ser Leu Asp Ile Asn																
100 105 110																
Ala Phe Arg Lys Glu Lys Asp Asp Lys Trp Lys Arg Gly Ser Glu Pro																
115 120 125																
Val Pro Glu Lys Lys Leu Glu Pro Val Val Phe Glu Lys Val Lys Met																
130 135 140																
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145 150 155 160																
Ser Thr Ala Pro Val Met Asp Leu Leu Gly Leu Asp Ala Pro Val Ala																
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Cys Ser Ile Ala Asn Ser Lys Thr Ser Asn Thr Leu Glu Lys Asp Leu																
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Asp Leu Leu Ala Ser Val Pro Ser Pro Ser Ser Ser Gly Ser Arg Lys																
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Val Val Gly Ser Met Pro Thr Ala Gly Ser Ala Gly Ser Val Pro Glu																
210 215 220																
Asn Leu Asn Leu Phe Pro Glu Pro Gly Ser Lys Ser Glu Glu Ile Gly																
225 230 235 240																
Lys Lys Gln Leu Ser Lys Asp Ser Ile Leu Ser Leu Tyr Gly Ser Gln																
245 250 255																
Thr Pro Gln Met Pro Thr Gln Ala Met Phe Met Ala Pro Ala Gln Met																
260 265 270																
Ala Tyr Pro Thr Ala Tyr Pro Ser Phe Pro Gly Val Thr Pro Pro Asn																
275 280 285																
Ser Ile Met Gly Ser Met Met Pro Pro Pro Val Gly Met Val Ala Gln																
290 295 300																
Pro Gly Ala Ser Gly Met Val Ala Pro Met Ala Met Pro Ala Gly Tyr																

305		310		315		320
Met Gly Gly Met	Gln Ala Ser Met Met Gly Val Pro Asn Gly Met Met					
	325		330		335	
Thr Thr Gln Gln Ala Gly Tyr Met Ala Gly Met Ala Ala Met Pro Gln						
	340		345		350	
Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr						
	355		360		365	
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly						
	370		375		380	
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala						
385	390		395		400	
Asn Gln Thr Leu Ser Pro Gln Met Trp Lys						
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<210> 4077
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 <212> DNA
 <213> Homo sapiens

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<210> 4078
 <211> 194
 <212> PRT
 <213> Homo sapiens

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<212> DNA
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420
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 780
 nta
 783

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
 50 55 60
 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
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 Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly
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 His Ala Arg Thr Lys
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<210> 4081
 <211> 645
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 4082
 <211> 215
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
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 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
 65 70 75 80
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
 100 105 110
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 115 120 125
 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
 130 135 140
 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
 145 150 155 160
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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 195 200 205
 Ile Lys Pro Gly Asp Pro Arg
 210 215

<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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 300
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 360

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<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4085

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<212> PRT

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Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
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Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
          690          695          700
Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
705          710          715          720
Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Leu Gly
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Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
          740          745          750
Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
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<211> 959

<212> DNA

<213> Homo sapiens

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Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
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 <213> Homo sapiens

<400> 4091
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<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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 Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
 35 40 45
 Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50 55 60
 Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65 70 75 80
 Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85 90 95
 Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
 100 105 110
 Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
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 Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
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 Ser Asn
 145

<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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 120
 gagaaaaga ggccggggcg cgctgggggg tgagagcatg agggaggccg gggggggctg
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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50					55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65				70					75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115				120					125				
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
	130					135					140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

145 150 155 160
 Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
 165 170 175
 Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
 180 185 190
 Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
 195 200 205
 Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
 210 215 220
 Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
 225 230 235 240
 Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
 245 250 255
 Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
 260 265 270
 Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
 275 280 285
 Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
 290 295 300
 Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
 305 310 315 320
 Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
 325 330 335
 Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
 340 345 350
 Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
 355 360 365
 Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
 370 375 380
 Ala Glu Thr Lys Asn Ala Ala
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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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120

agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg

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253

<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

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      20           25           30
Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
      35           40           45
Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
      50           55           60
Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
65           70           75           80
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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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1020

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 1260
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<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

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			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
	50					55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65					70					75					80
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
		115					120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
	130					135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
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Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
		180					185						190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
		195					200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
	210					215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235					240
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
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Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 511

<210> 4100
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4100
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 20 25 30
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 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
 85 90 95
 Pro Glu Phe His
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<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
		35				40					45				
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
	50					55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65					70					75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
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Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
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<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys
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Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly
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Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile
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Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala
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Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val
				180				185					190	
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu
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Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys
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Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro
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Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys
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Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys
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Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala
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Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly
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His	Trp	Ala	Ala	Phe	Ser	Gly	Cys	Val	Asp	Ile	Ala	Glu	Ile	Leu	Leu								
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Pro	Leu	Gln	Cys	Ala	Ser	Leu	Asn	Ser	Gln	Val	Trp	Ser	Ala	Leu	Gln								
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625					630					635					640								
Glu	Arg	Ile	Val	Ser	Arg	Asp	Ile	Ala	Arg	Gly	Tyr	Glu	Arg	Ile	Pro								
				645				650						655									
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Lys	Tyr	Val	Ser	Gln	Asn	Cys	Val	Thr	Ser	Pro	Met	Asn	Ile	Asp	Arg								
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Asn	Ile	Thr	His	Leu	Gln	Tyr	Cys	Val	Cys	Ile	Asp	Asp	Cys	Ser	Ser								
	690					695					700												
Ser	Asn	Cys	Met	Cys	Gly	Gln	Leu	Ser	Met	Arg	Cys	Trp	Tyr	Asp	Lys								
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<212> DNA
<213> Homo sapiens
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<212> PRT
<213> Homo sapiens
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Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala				
	115		120	125
Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro				
	130		135	140
Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr				
145		150		155
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<213> Homo sapiens

<400> 4107

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<212> PRT

<213> Homo sapiens

<400> 4108

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			20					25					30		
Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
		35					40					45			
Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
	50					55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
65					70					75				80	
Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
				85					90					95	
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
			100					105					110		
Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
		115					120					125			
Arg	Ile	Ala	Trp	Thr	His	Ile	Thr	Ile	Pro	Glu	Ser	Leu	Arg	Gln	Gly
	130					135					140				
Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
145				150						155				160	
Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
			165					170						175	
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		180						185					190		
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210		215		220
Gln Pro Arg Cys Ser Glu Asp Leu Lys Ala Ile Gln Asp Met Phe				
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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg				
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<211> 375

<212> PRT

<213> Homo sapiens

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			20					25					30		
Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
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His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
	50				55					60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
65				70				75						80	
Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
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Ala	Ala	Asp	Leu	Ser	Glu	Ala	Glu	Pro	Thr	Leu	Thr	His	Met	Ser	Ile
	115					120						125			
Thr	Arg	Leu	His	Glu	Gln	Lys	Leu	Val	Gln	His	Val	Val	Ser	Gln	Asn
	130				135					140					
Cys	Asp	Gly	Leu	His	Leu	Arg	Ser	Gly	Leu	Pro	Arg	Thr	Ala	Ile	Ser
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Asn	Arg	Glu	Tyr	Val	Arg	Val	Phe	Asp	Val	Thr	Glu	Arg	Thr	Ala	Leu
		180					185				190				
His	Arg	His	Gln	Thr	Gly	Arg	Thr	Cys	His	Lys	Cys	Gly	Thr	Gln	Leu
	195					200						205			
Arg	Asp	Thr	Ile	Val	His	Phe	Gly	Glu	Arg	Gly	Thr	Leu	Gly	Gln	Pro
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<210> 4112
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 <212> PRT
 <213> Homo sapiens

<400> 4112
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 Asp Lys Ala Thr Gly Ile Leu Leu Tyr Gly Leu Ala Ser Arg Leu Arg
 50 55 60
 Asp Thr Arg Arg Leu Ser Phe Leu Val Ser Tyr Ile Ala Ser Lys Lys
 65 70 75 80
 Ile His Thr Glu Pro Gln Leu Ser Ala Ala Leu Glu Tyr Val Arg Ser
 85 90 95
 His Pro Leu Asp Pro Ile Asp Thr Val Asp Phe Glu Arg Glu Cys Gly
 100 105 110
 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala
 115 120 125
 Ala Ile Asn Arg His Arg Pro Gln Leu Leu Val Glu Arg Tyr His Phe
 130 135 140
 Asn Met Gly Leu Leu Met Gly Glu Ala Arg Ala Val Leu Lys Trp Ala
 145 150 155 160
 Asp Gly Lys Met Ile Lys Asn Glu Val Asp Met Gln Val Leu His Leu
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 Leu Gly Pro Lys Leu Glu Ala Asp Leu Glu Lys Lys Phe Lys Val Ala
 180 185 190
 Lys Ala Arg Leu Glu Glu Thr Asp Arg Arg Thr Ala Lys Asp Val Val
 195 200 205
 Glu Asn Gly Glu Thr Ala Asp Gln Thr Leu Ser Leu Met Glu Gln Leu
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 Arg Gly Glu Ala Leu Lys Phe His Lys Pro Gly Glu Asn Tyr Lys Thr
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 Pro Gly Tyr Val Val Thr Pro His Thr Met Asn Leu Leu Lys Gln His
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 Leu Glu Ile Thr Gly Gly Gln Val Arg Thr Arg Phe Pro Pro Glu Pro
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 Asn Gly Ile Leu His Ile Gly His Ala Lys Ala Ile Asn Phe Asn Phe
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 Gly Tyr Ala Lys Ala Asn Asn Gly Ile Cys Phe Leu Arg Phe Asp Asp
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 Thr Asn Pro Glu Lys Glu Glu Ala Lys Phe Phe Thr Ala Ile Cys Asp
 305 310 315 320
 Met Val Ala Trp Leu Gly Tyr Thr Pro Tyr Lys Val Thr Tyr Ala Ser

325 330 335
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 Gly Leu Ala Tyr Val Cys His Gln Arg Gly Glu Glu Leu Lys Gly His
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 Arg Lys Ile Leu Gln Leu Val Ala Thr Gly Ala Val Arg Asp Trp Asp
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 Thr Gly Tyr Val Ile Glu Leu Gln His Val Val Lys Gly Pro Ser Gly
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 675 680 685
 Val Arg Leu Tyr Glu Arg Leu Phe Gln His Lys Asn Pro Glu Asp Pro
 690 695 700
 Thr Glu Val Pro Gly Gly Phe Leu Ser Asp Leu Asn Leu Ala Ser Leu
 705 710 715 720
 His Val Val Asp Ala Ala Leu Val Asp Cys Ser Val Ala Leu Ala Lys
 725 730 735
 Pro Phe Asp Lys Phe Gln Phe Glu Arg Leu Gly Tyr Phe Ser Val Asp
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760

765

<210> 4113
<211> 1894
<212> DNA
<213> Homo sapiens

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1320

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<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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Pro	Arg	Arg	Met	Met	Thr	Arg	Ser	Gln	Asp	Ala	Thr	Phe	Ser	Pro	Gly

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	245	250
Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly		255
	260	265
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln		270
	275	280
Ala Ser Ser Leu Cys Ser Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser		285
	290	295
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn		300
305	310	315
Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp		320
	325	330
Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu		335
	340	345
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser		350
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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720

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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
 50 55 60
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
 115 120 125
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 Leu His Asn Glu Gly Ala Ile
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<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

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<210> 4118
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4118
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 35 40 45
 Arg Cys Val Gly Cys Pro Arg Pro Ala Arg Pro Ala Ser Pro Ser Pro
 50 55 60
 Gly Glu Ala Thr Pro Pro Ser Ser Gly Ile Ser Ala Val Lys Pro
 65 70 75 80
 Pro Leu Arg Ser Pro Arg Thr Leu Pro Leu Glu Leu Gly Thr Gly Gly
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<210> 4119
 <211> 649
 <212> DNA
 <213> Homo sapiens

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<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
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 Trp Leu Arg Ala Ala Ser Val Ala Val Gly Ser Pro Leu Val Thr Ala
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 His Ser Leu His
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<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

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<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
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225          230          235          240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
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<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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<212> PRT

<213> Homo sapiens

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		50				55					60				
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<212> DNA

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<211> 820

<212> PRT

<213> Homo sapiens

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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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 Glu Asn Pro Cys Leu Thr Phe Ile Ile Ser Ser Ile Leu Glu Ser Asp

50 55 60
 Glu Phe Leu Val Ile Asp Val Ile His Glu Val Ala His Ser Trp Phe
 65 70 75 80
 Gly Asn Ala Val Thr Asn Ala Thr Trp Glu Met Trp Leu Ser Glu
 85 90 95
 Gly Leu Ala Thr Tyr Ala Gln Arg Arg Ile Thr Thr Glu Thr Tyr Gly
 100 105 110
 Ala Ala Phe Thr Cys Leu Glu Thr Ala Phe Arg Leu Asp Ala Leu His
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 Arg Gln Met Lys Leu Leu Gly Glu Asp Ser Pro Val Ser Lys Leu Gln
 130 135 140
 Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe
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 Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys
 165 170 175
 Gly Asp Pro Gln Arg Phe Asp Asp Phe Leu Arg Ala Tyr Val Glu Lys
 180 185 190
 Tyr Lys Phe Thr Ser Val Val Ala Gln Asp Leu Leu Asp Ser Phe Leu
 195 200 205
 Ser Phe Phe Pro Glu Leu Lys Glu Gln Ser Val Asp Cys Arg Ala Gly
 210 215 220
 Leu Glu Phe Glu Arg Trp Leu Asn Ala Thr Gly Pro Pro Leu Ala Glu
 225 230 235 240
 Pro Asp Leu Ser Gln Gly Ser Ser Leu Thr Arg Pro Val Glu Ala Leu
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 Phe Gln Leu Trp Thr Ala Glu Pro Leu Asp Gln Ala Ala Ala Ser Ala
 260 265 270
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 275 280 285
 Leu Asp Arg Leu Leu Asp Gly Ser Pro Leu Pro Gln Glu Val Val Met
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 Ile Arg Ile Arg Trp Leu Gln Ile Val Val Arg Asn Asp Tyr Tyr Pro
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 Asp Leu His Arg Val Arg Arg Phe Leu Glu Ser Gln Met Ser Arg Met
 340 345 350
 Tyr Thr Ile Pro Leu Tyr Glu Asp Leu Cys Thr Gly Ala Leu Lys Ser
 355 360 365
 Phe Ala Leu Glu Val Phe Tyr Gln Thr Gln Gly Arg Leu His Pro Asn
 370 375 380
 Leu Arg Arg Ala Ile Gln Gln Ile Leu Ser Gln Gly Leu Gly Ser Ser
 385 390 395 400
 Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala
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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

<400> 4129

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<210> 4130

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4130

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			20					25				30			
Val	Val	Asp	Gln	Gly	Ala	Gly	Ala	Ser	Arg	Gly	Gly	Asn	Thr	Arg	Lys
		35					40					45			
Ser	Leu	Glu	Asp	Asn	Gly	Ser	Thr	Arg	Val	Thr	Pro	Ser	Val	Gln	Pro
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His	Leu	Gln	Pro	Ile	Arg	Asn	Met	Ser	Val	Ser	Arg	Thr	Met	Glu	Asp
65					70					75				80	
Ser	Cys	Glu	Leu	Asp	Leu	Val	Tyr	Val	Thr	Glu	Arg	Ile	Ile	Ala	Val
			85						90					95	
Ser	Phe	Pro	Ser	Thr	Ala	Asn	Glu	Glu	Asn	Phe	Arg	Ser	Asn	Leu	Arg
			100					105					110		
Glu	Val	Ala	Gln	Met	Leu	Lys	Ser	Lys	His	Gly	Gly	Asn	Tyr	Leu	Leu
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Phe	Asn	Leu	Ser	Glu	Arg	Arg	Pro	Asp	Ile	Thr	Lys	Leu	His	Ala	Lys
	130					135					140				
Val	Leu	Glu	Phe	Gly	Trp	Pro	Asp	Leu	His	Thr	Pro	Ala	Leu	Glu	Lys
145					150					155				160	
Ile	Cys	Ser	Ile	Cys	Lys	Ala	Met	Asp	Thr	Trp	Leu	Asn	Ala	Asp	Pro
			165						170					175	
His	Asn	Val	Val	Val	Leu	His	Asn	Lys	Gly	Asn	Arg	Gly	Arg	Ile	Gly
		180						185					190		
Val	Val	Ile	Ala	Ala	Tyr	Met	His	Tyr	Ser	Asn	Ile	Ser	Ala	Ser	Ala
		195					200					205			
Asp	Gln	Ala	Leu	Asp	Arg	Phe	Ala	Met	Lys	Arg	Phe	Tyr	Glu	Asp	Lys
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225					230					235				240	
Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Lys	Met	Asn	Asn	Lys	Pro	Leu	Phe
			245						250					255	
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Gly	Cys	Arg	Pro	Phe	Leu	Arg	Ile	Tyr	Gln	Ala	Met	Gln	Pro	Val	Tyr
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Thr	Ser	Gly	Ile	Tyr	Asn	Ile	Pro	Gly	Asp	Ser	Gln	Thr	Ser	Val	Cys
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Cys	Tyr	His	Lys	Lys	Phe	Arg	Ser	Pro	Ala	Arg	Asp	Val	Ile	Phe	Arg
				325					330					335	
Val	Gln	Phe	His	Thr	Cys	Ala	Ile	His	Ala	Trp	Gly	Val	Val	Phe	Gly
			340					345					350		
Lys	Glu	Asp	Leu	Asp	Asp	Ala	Phe	Lys	Asp	Asp	Arg	Phe	Pro	Glu	Tyr
		355					360					365			
Gly	Lys	Val	Glu	Phe	Val	Phe	Ser	Tyr	Gly	Pro	Glu	Lys	Ile	Gln	Gly
	370					375				380					
Met	Glu	His	Leu	Glu	Asn	Gly	Pro	Ser	Val	Ser	Val	Asp	Tyr	Asn	Thr
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Ser	Asp	Pro	Leu	Ile	Arg	Trp	Asp	Ser	Tyr	Asp	Asn	Phe	Ser	Gly	His
			405						410				415		
Arg	Asp	Asp	Gly	Met	Glu	Glu	Val	Val	Gly	His	Thr	Gln	Gly	Pro	Leu
			420					425					430		
Asp	Gly	Ser	Leu	Tyr	Ala	Lys	Val	Lys	Lys	Lys	Asp	Ser	Leu	His	Gly
		435					440					445			
Ser	Thr	Gly	Ala	Val	Asn	Ala	Thr	Arg	Pro	Thr	Leu	Ser	Ala	Thr	Pro
	450					455					460				
Asn	His	Val	Glu	His	Thr	Leu	Ser	Val	Ser	Ser	Asp	Ser	Gly	Asn	Ser
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Thr	Ala	Ser	Thr	Lys	Thr	Asp	Lys	Thr	Asp	Glu	Pro	Val	Pro	Gly	Ala
			485						490					495	
Ser	Ser	Ala	His	Ala	Ala	Arg	Thr	Val	Thr	Ile	Leu	Val	Trp	Gln	Phe
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<210> 4131
<211> 608
<212> DNA
<213> Homo sapiens
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240
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300
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360
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600

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608

<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
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Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
180 185 190
Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

<400> 4133
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240
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300
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<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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	50					55					60					
Thr	Ser	Gly	Ala	Gly	Pro	Lys	Ser	Trp	Gln	Val	Pro	Pro	Pro	Ala	Pro	
65					70					75					80	
Glu	Val	Gln	Ile	Arg	Thr	Pro	Arg	Val	Asn	Cys	Pro	Glu	Lys	Val	Ile	
				85				90						95		
Ile	Cys	Leu	Asp	Leu	Ser	Glu	Glu	Met	Ser	Leu	Pro	Lys	Leu	Glu	Ser	
			100					105					110			
Phe	Asn	Gly	Ser	Lys	Thr	Asn	Ala	Leu	Asn	Val	Ser	Gln	Lys	Met	Ile	
		115						120					125			
Glu	Met	Phe	Val	Arg	Thr	Lys	His	Lys	Ile	Asp	Lys	Ser	His	Glu	Phe	
	130					135					140					
Ala	Leu	Val	Val	Val	Asn	Asp	Asp	Thr	Ala	Trp	Leu	Ser	Gly	Leu	Thr	
145					150					155					160	
Ser	Asp	Pro	Arg	Glu	Leu	Cys	Ser	Cys	Leu	Tyr	Asp	Leu	Glu	Thr	Ala	
				165				170						175		
Ser	Cys	Ser	Thr	Phe	Asn	Leu	Glu	Gly	Leu	Phe	Ser	Leu	Ile	Gln	Gln	
			180					185					190			
Lys	Thr	Glu	Leu	Pro	Val	Thr	Glu	Asn	Val	Gln	Thr	Ile	Pro	Pro	Pro	
		195						200					205			
Tyr	Val	Val	Arg	Thr	Ile	Leu	Val	Tyr	Ser	Arg	Pro	Pro	Cys	Gln	Pro	
	210					215					220					
Gln	Phe	Ser	Leu	Thr	Glu	Pro	Met	Lys	Lys	Met	Phe	Gln	Cys	Pro	Tyr	
225					230					235					240	
Phe	Phe	Phe	Asp	Val	Val	Tyr	Ile	His	Asn	Gly	Thr	Glu	Glu	Lys	Glu	
			245					250						255		
Glu	Glu	Met	Ser	Trp	Lys	Asp	Met	Phe	Ala	Phe	Met	Gly	Ser	Leu	Asp	
			260					265					270			
Thr	Lys	Gly	Thr	Ser	Tyr	Lys	Tyr	Glu	Val	Ala	Leu	Ala	Gly	Pro	Ala	
		275						280					285			
Leu	Glu	Leu	His	Asn	Cys	Met	Ala	Lys	Leu	Leu	Ala	His	Pro	Leu	Gln	
	290					295					300					
Arg	Pro	Cys	Gln	Ser	His	Ala	Ser	Tyr	Ser	Leu	Leu	Glu	Glu	Glu	Asp	
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Glu	Ala	Ile	Glu	Val	Glu	Ala	Thr	Val								
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<210> 4135
<211> 388
<212> DNA
<213> Homo sapiens
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180
catggatctt gaggaccac gaccaatctt tgactggatg cagatcatcc gcaaacgggc
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 360
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<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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Arg	Ser	Ala	Val	Arg	Tyr	Asp	Lys	Thr	Tyr	Phe	Asp	Lys	Ile	Val	Ala
			20					25					30		
Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys	Leu	Thr	Thr	Gly	Arg	Ile	Ala	Glu
			35				40					45			
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Asp	Ala	Leu	Ser	Asp	Thr	Glu	Val	Ala	Ala	Ala	Val	Gly	Asn	Ser	Met
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Phe	Ser	Asp	Leu	Val	Ser	Val	Ala	Gly	His	Ile	Tyr	Lys	Phe	Gly	Ile
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<210> 4137

<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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 <212> PRT
 <213> Homo sapiens

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 65 70 75 80
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 Arg Asp Tyr His Asn Thr Ser Met Ala Leu Glu Gly Val Pro Glu Leu
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 Leu Gln Lys Ile Leu Glu Ala Pro Asp Phe Tyr Val Gln Met Lys Trp
 115 120 125
 Glu Phe Thr Ser Trp Val Pro Leu Val Ser Arg Ile Cys Pro Asn Asp
 130 135 140
 Val Cys Arg Ile Trp Lys Ser Gly Ala Lys Leu Arg Val Asp Ile Thr
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 Leu Leu Gly Phe Glu Asn Met Ser Trp Ile Arg Gly Arg Arg Ser Phe
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 Ile Phe Lys Gly Glu Asp Asn Trp Ala Glu Leu Met Glu Val Asn His
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 Asp Asp Lys Val Val Thr Thr Glu Arg Phe Asp Leu Ser Gln Glu Met
 195 200 205
 Glu Arg Leu Thr Leu Asp Leu Met Lys Pro Lys Ser Arg Glu Val Glu
 210 215 220
 Arg Arg Leu Thr Ser Pro Val Ile Asn Thr Ser Leu Asp Thr Lys Asn
 225 230 235 240
 Ile Ala Phe Glu Arg Thr Lys Ser Gly Phe Trp Gly Trp Arg Thr Asp
 245 250 255
 Lys Ala Glu Val Val Asn Gly Tyr Glu Ala Lys Val Tyr Thr Val Asn
 260 265 270
 Asn Val Asn Val Ile Thr Lys Ile Arg Thr Glu His Leu Thr Glu Glu
 275 280 285
 Glu Lys Lys Arg Tyr Lys Ala Asp Arg Asn Pro Leu Glu Ser Leu Leu
 290 295 300
 Gly Thr Val Glu His Gln Phe Gly Ala Gln Gly Asp Leu Thr Thr Glu
 305 310 315 320
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<210> 4139
 <211> 431
 <212> DNA
 <213> Homo sapiens

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 <211> 50
 <212> PRT
 <213> Homo sapiens

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 Val Pro
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<210> 4141
 <211> 1182
 <212> DNA
 <213> Homo sapiens

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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
			35				40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
			50			55				60					
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70					75					80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90					95		
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			180					185					190		
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	195						200					205			
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			260					265					270		
Glu	Thr	Pro	Leu	Asn	Ser	Val	Leu	Gly	Asp	Ser	Ser	Ala	Ser	Glu	Pro
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<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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			20					25				30			
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
		35					40				45				
Ser	Val	Leu	Tyr	Leu	His	Arg	Ser	Leu	Ala	Asp	Leu	Gly	Arg	Leu	Trp

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	85	90
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser		95
	100	105
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu		110
	115	120
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile		125
	130	135
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser		140
145	150	155
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser		160
	165	170
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His		175
	180	185
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp		190
	195	200
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4146

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<213> Homo sapiens
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 <211> 697
 <212> PRT
 <213> Homo sapiens

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<210> 4149

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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 <211> 193
 <212> PRT
 <213> Homo sapiens

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 His Ile Lys Arg Ile Thr Asp Asn Asp Ile Gln Ser Leu Val Leu Glu
 35 40 45
 Ile Glu Gly Thr Asn Val Ser Thr Thr Tyr Ile Thr Cys Pro Ala Asp
 50 55 60
 Pro Lys Lys Thr Leu Gly Ile Lys Leu Pro Phe Leu Val Met Ile Ile
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 Lys Asn Leu Lys Lys Tyr Phe Thr Phe Glu Val Gln Val Leu Asp Asp
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 Lys Asn Val Arg Arg Arg Phe Arg Ala Ser Asn Tyr Gln Ser Thr Thr
 100 105 110
 Arg Val Lys Pro Phe Ile Cys Thr Met Pro Met Arg Leu Asp Asp Gly
 115 120 125
 Trp Asn Gln Ile Gln Phe Asn Leu Leu Asp Phe Thr Arg Arg Ala Tyr
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 Gly Thr Asn Tyr Ile Glu Thr Leu Arg Val Gln Ile His Ala Asn Cys
 145 150 155 160
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<210> 4151
 <211> 1372
 <212> DNA
 <213> Homo sapiens

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<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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 Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
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<210> 4153
 <211> 395
 <212> DNA
 <213> Homo sapiens

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<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
 50 55 60
 Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
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<210> 4155
<211> 1191
<212> DNA
<213> Homo sapiens

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<210> 4156
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4156
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Glu Leu Asn	Val Gly Asp Val Val	Met Val Asn Tyr	Asn Val Glu Ser
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Pro Gly Gln	Arg Gly Phe Trp Phe	Asp Ala Glu Ile	Thr Thr Leu Lys
65		70	75
Thr Ile Ser	Arg Thr Lys Lys	Glu Leu Arg Val	Lys Ile Phe Leu Gly
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Gly Ser Glu	Gly Thr Leu Asn Asp	Cys Lys Ile Ile	Ser Val Asp Glu
	100	105	110
Ile Phe Lys	Ile Glu Arg Pro Gly	Ala His Pro Leu	Ser Phe Ala Asp
	115	120	125
Gly Lys Phe	Leu Arg Arg Asn Asp	Pro Glu Cys Asp	Leu Cys Gly Gly
	130	135	140
Asp Pro Glu	Lys Lys Cys His Ser	Cys Ser Cys Arg	Val Cys Gly Gly
145		150	155
Lys His Glu	Pro Asn Met Gln Leu	Leu Cys Asp Glu	Cys Asn Val Ala
	165	170	175
Tyr His Ile	Tyr Cys Leu Asn Pro	Pro Leu Asp Lys	Val Pro Glu Glu
	180	185	190
Glu Tyr Trp	Tyr Cys Pro Ser Cys	Lys Thr Asp Ser	Ser Ser Glu Val Val
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Lys Ala Gly	Glu Arg Leu Lys Met	Ser Lys Lys Lys	Ala Lys Met Pro
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<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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540

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<212> PRT

<213> Homo sapiens

<400> 4158

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<212> DNA

<213> Homo sapiens

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Phe	Glu	Ser	Trp	Val	Cys	Asp	Ser	Gln	Asp	Asp	Cys	Gly	Asp	Gly	Ser					
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Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly		720
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Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln		735
	740	745
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	755	760
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser		765
	770	775
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser		780
785	790	795
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly		800
	805	810
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val		815
	820	825
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn		830
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Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys		845
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<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<210> 4164

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4164

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      20           25           30
Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
      35           40           45
Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
      50           55           60
Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
65           70           75           80
Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
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Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
      100          105          110
Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
      115          120          125
Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
      130          135          140
Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
145          150          155          160
Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
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<212> DNA

<213> Homo sapiens

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aattctatca gttgaattcc ctggatagtc caagctttgt ggatccctcc accagaacaa
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<212> PRT
<213> Homo sapiens

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35 40 45
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn
50 55 60
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu
65 70 75 80
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp
85 90 95
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys
100 105 110
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln
115 120 125
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly
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<212> DNA
<213> Homo sapiens

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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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			20					25					30		
Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
		35					40					45			
Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
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Asp	Tyr	Arg	Tyr	Gly	Arg	Val	Glu	Ser	Val	Lys	Ile	Leu	Pro	Lys	Arg
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Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
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Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
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 <212> DNA
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<211> 900

<212> PRT

<213> Homo sapiens

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Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
		260						265					270		
Lys	Lys	Leu	Tyr	Ala	Gln	Glu	Tyr	Glu	Phe	Glu	Ala	Asp	Glu	Asp	Lys
		275				280						285			
Ala	Asp	Val	Pro	Ala	Asp	Ile	Arg	Leu	Asn	Pro	Arg	Arg	Leu	Pro	Asp

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 Leu Val Ser Ser Cys Arg Ser Arg Pro Ala Leu Ser Pro Leu Gly Asp
 305 310 315 320
 Ile Asp Phe Cys Leu Pro Asn Pro Gly Pro Asp Gly Pro Arg Arg Arg
 325 330 335
 Gly Arg Lys Pro Thr Lys Ala Lys Arg Asp Gly Pro Pro Arg Pro Arg
 340 345 350
 Gly Arg Pro Arg Ile Arg Pro Leu Glu Val Pro Thr Thr Ala Gly Pro
 355 360 365
 Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg
 370 375 380
 Gly Arg Gly Arg Gly Arg Lys Ala Glu Glu Ala Gly Gly Thr Arg Leu
 385 390 395 400
 Glu Pro Leu Lys Pro Leu Lys Ile Lys Leu Ser Val Pro Lys Ala Gly
 405 410 415
 Glu Gly Leu Gly Thr Ser Ser Gly Asp Ala Ile Ser Gly Thr Asp His
 420 425 430
 Asn Ser Leu Asp Ser Ser Leu Thr Arg Glu Lys Ile Glu Ala Lys Ile
 435 440 445
 Lys Glu Val Glu Glu Lys Gln Pro Glu Met Lys Ser Gly Phe Met Ala
 450 455 460
 Ser Phe Leu Asp Phe Leu Lys Ser Gly Lys Arg His Pro Pro Leu Tyr
 465 470 475 480
 Gln Ala Gly Leu Thr Pro Pro Leu Ser Pro Pro Lys Ser Val Pro Pro
 485 490 495
 Ser Val Pro Ala Arg Gly Leu Gln Pro Gln Pro Pro Ala Thr Pro Ala
 500 505 510
 Val Pro His Pro Pro Pro Ser Gly Ala Phe Gly Leu Gly Gly Ala Leu
 515 520 525
 Glu Ala Ala Glu Ser Glu Gly Leu Gly Leu Gly Cys Pro Ser Pro Cys
 530 535 540
 Lys Arg Leu Asp Glu Glu Leu Lys Arg Asn Leu Glu Thr Leu Pro Ser
 545 550 555 560
 Phe Ser Ser Asp Glu Glu Asp Ser Val Ala Lys Asn Arg Asp Leu Gln
 565 570 575
 Glu Ser Ile Ser Ser Ala Ile Ser Ala Leu Asp Asp Pro Pro Leu Ala
 580 585 590
 Gly Pro Lys Asp Thr Ser Thr Pro Asp Gly Pro Pro Leu Ala Pro Ala
 595 600 605
 Ala Ala Val Pro Gly Pro Pro Pro Leu Pro Gly Leu Pro Ser Ala Asn
 610 615 620
 Ser Asn Gly Thr Pro Glu Pro Pro Leu Leu Glu Glu Lys Pro Pro Pro
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 Thr Pro Pro Pro Ala Pro Thr Pro Gln Pro Gln Pro Pro Pro Pro Pro
 645 650 655
 Pro Pro Pro Gln Pro Ala Leu Pro Ser Pro Pro Pro Leu Val Ala Pro
 660 665 670
 Thr Pro Ser Ser Pro Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro
 675 680 685
 Ala Met Pro Ser Pro Pro Pro Pro Pro Pro Pro Ala Ala Ala Pro Leu
 690 695 700
 Ala Ala Pro Pro Glu Glu Pro Ala Ala Pro Ser Pro Glu Asp Pro Glu
 705 710 715 720
 Leu Pro Asp Thr Arg Pro Leu His Leu Ala Lys Lys Gln Glu Thr Ala

725 730 735
 Ala Val Cys Gly Glu Thr Asp Glu Glu Ala Gly Glu Ser Gly Gly Glu
 740 745 750
 Gly Ile Phe Arg Glu Arg Asp Glu Phe Val Ile Arg Ala Glu Asp Ile
 755 760 765
 Pro Ser Leu Lys Leu Ala Leu Gln Thr Gly Arg Glu Pro Pro Pro Ile
 770 775 780
 Trp Arg Val Gln Lys Ala Leu Leu Gln Lys Phe Thr Pro Glu Ile Lys
 785 790 795 800
 Asp Gly Gln Arg Gln Phe Cys Ala Thr Ser Asn Tyr Leu Gly Tyr Phe
 805 810 815
 Gly Asp Ala Lys Asn Arg Tyr Gln Arg Leu Tyr Val Lys Phe Leu Glu
 820 825 830
 Asn Val Asn Lys Lys Asp Tyr Val Arg Val Cys Ala Arg Lys Pro Trp
 835 840 845
 His Arg Pro Pro Val Pro Val Arg Arg Ser Gly Gln Ala Lys Asn Pro
 850 855 860
 Val Ser Ala Gly Gly Ser Ser Ala Pro Pro Pro Lys Ala Pro Ala Pro
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 Pro Pro Lys Pro Glu Thr Pro Glu Lys Thr Thr Ser Glu Lys Pro Pro
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 Ala Ala Asp Ser
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<210> 4171

<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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 780
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<210> 4172
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 4172
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 Leu Val Ile Ile Gly Thr Leu Leu Ala Trp Tyr Leu Cys Phe Leu Ile
 35 40 45
 Val Phe Ile Leu Pro Leu Asp Val Ser Thr Thr Ile Tyr Asn Arg Cys
 50 55 60
 Lys His Ala Ala Gln Ile Gln Ala Leu Leu Arg Ile Ala Thr Leu Gln
 65 70 75 80
 Asp Cys Ala Thr Ala Asn Pro Val Pro Ser Gln His Pro Cys Phe Lys
 85 90 95
 Pro Trp Ser Tyr Ile Pro Asp Gly Ile Met Pro Ile Phe Trp Arg Val
 100 105 110
 Val Tyr Trp Thr Ser Gln Phe Leu Thr Trp Ile Leu Leu Pro Phe Met
 115 120 125
 Gln Ser Tyr Ala Arg Ser Gly Gly Phe Ser Ile Thr Gly Lys Ile Lys
 130 135 140
 Thr Ala Leu Ile Glu Asn Ala Ile Tyr Tyr Gly Thr Tyr Leu Leu Ile
 145 150 155 160
 Phe Gly Ala Phe Leu Ile Tyr Val Ala Val Asn Pro His Leu His Leu
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 Glu Trp Asn Gln Leu Gln Thr Ile
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<210> 4173
 <211> 404
 <212> DNA
 <213> Homo sapiens

<400> 4173
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<210> 4174
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4174
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 Gly Thr Pro Val Ser Lys Cys Ala Arg Ala Leu Gly Ser Ala Lys Gly
 35 40 45
 Pro Leu Leu Cys Cys Cys Val Gln Ala Trp His Leu Gln Asp Gly Asp
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 Ser Phe Leu Thr His Asp His Tyr Tyr Met Leu Asn Asp Leu Pro Asp
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 Ser Ser Ser Pro Val Ala Ala Thr Phe Met Phe
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<210> 4175
 <211> 2778
 <212> DNA
 <213> Homo sapiens

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 180
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2340

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<210> 4176

<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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Ala	Gly	Leu	Arg	Ala	Ala	Met	Gly	Pro	Gly	Ile	Ser	Arg	Met	Asn	Asp
		35					40					45			
Leu	Thr	Ile	Ile	Gln	Thr	Thr	Gln	Gly	Phe	Cys	Arg	Tyr	Leu	Glu	Lys
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Gln	Phe	Ser	Asp	Leu	Lys	Gln	Lys	Gly	Ile	Val	Ile	Ser	Phe	Asp	Ala
65				70					75					80	
Arg	Ala	His	Pro	Ser	Ser	Gly	Gly	Ser	Ser	Arg	Arg	Phe	Ala	Arg	Leu
			85					90					95		
Ala	Ala	Thr	Thr	Phe	Ile	Ser	Gln	Gly	Ile	Pro	Val	Tyr	Leu	Phe	Ser
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Asp	Ile	Thr	Pro	Thr	Pro	Phe	Val	Pro	Phe	Thr	Val	Ser	His	Leu	Lys
	115					120						125			
Leu	Cys	Ala	Gly	Ile	Met	Ile	Thr	Ala	Ser	His	Asn	Pro	Lys	Gln	Asp
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Asn	Gly	Tyr	Lys	Val	Tyr	Trp	Asp	Asn	Gly	Ala	Gln	Ile	Ile	Ser	Pro
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His	Asp	Lys	Gly	Ile	Ser	Gln	Ala	Ile	Glu	Glu	Asn	Leu	Glu	Pro	Trp
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Pro	Gln	Ala	Trp	Asp	Asp	Ser	Leu	Ile	Asp	Ser	Ser	Pro	Leu	Leu	His
		180					185						190		
Asn	Pro	Ser	Ala	Ser	Ile	Asn	Asn	Asp	Tyr	Phe	Glu	Asp	Leu	Lys	Lys
	195					200					205				
Tyr	Cys	Phe	His	Arg	Ser	Val	Asn	Arg	Glu	Thr	Lys	Val	Lys	Phe	Val
	210					215					220				
His	Thr	Ser	Val	His	Gly	Val	Gly	His	Ser	Phe	Val	Gln	Ser	Ala	Phe
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Lys	Ala	Phe	Xaa	Pro	Cys	Ser	Ser	Xaa	Glu	Ala	Val	Pro	Glu	Gln	Lys

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Asp	Pro	Asp	Pro	Glu	Phe	Pro	Thr	Val	Lys	Tyr	Pro	Asn	Pro	Glu	Glu												
														260						265						270	
Gly	Lys	Gly	Val	Leu	Thr	Leu	Ser	Phe	Ala	Leu	Ala	Asp	Lys	Thr	Lys												
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Ala	Arg	Ile	Val	Leu	Ala	Asn	Asp	Pro	Asp	Ala	Asp	Arg	Leu	Ala	Val												
														290						295						300	
Ala	Glu	Lys	Gln	Asp	Ser	Gly	Glu	Trp	Arg	Val	Phe	Ser	Gly	Asn	Glu												
														305						310						315	
Leu	Gly	Ala	Leu	Leu	Gly	Trp	Trp	Leu	Phe	Thr	Ser	Trp	Lys	Glu	Lys												
														325						330						335	
Asn	Gln	Asp	Arg	Ser	Ala	Leu	Lys	Asp	Thr	Tyr	Met	Leu	Ser	Ser	Thr												
														340						345						350	
Val	Ser	Ser	Lys	Ile	Leu	Arg	Ala	Ile	Ala	Leu	Lys	Glu	Gly	Phe	His												
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Phe	Glu	Glu	Thr	Leu	Thr	Gly	Phe	Lys	Trp	Met	Gly	Asn	Arg	Ala	Lys												
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Gln	Leu	Ile	Asp	Gln	Gly	Lys	Thr	Val	Leu	Phe	Ala	Phe	Glu	Glu	Ala												
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Ile	Gly	Tyr	Met	Cys	Cys	Pro	Phe	Val	Leu	Asp	Lys	Asp	Gly	Val	Ser												
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Ala	Ala	Val	Ile	Ser	Ala	Glu	Leu	Ala	Ser	Phe	Leu	Ala	Thr	Lys	Asn												
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Leu	Ser	Leu	Ser	Gln	Gln	Leu	Lys	Ala	Ile	Tyr	Val	Glu	Tyr	Gly	Tyr												
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His	Ile	Thr	Lys	Ala	Ser	Tyr	Phe	Ile	Cys	His	Asp	Gln	Glu	Thr	Ile												
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Lys	Lys	Leu	Phe	Glu	Asn	Leu	Arg	Asn	Tyr	Asp	Gly	Lys	Asn	Asn	Tyr												
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Pro	Lys	Ala	Cys	Gly	Lys	Phe	Glu	Ile	Ser	Ala	Ile	Arg	Asp	Leu	Thr												
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Thr	Gly	Tyr	Asp	Asp	Ser	Gln	Pro	Asp	Lys	Lys	Ala	Val	Leu	Pro	Thr												
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Ser	Lys	Ser	Ser	Gln	Met	Ile	Thr	Phe	Thr	Phe	Ala	Asn	Gly	Gly	Val												
														515						520						525	
Ala	Thr	Met	Arg	Thr	Ser	Gly	Thr	Glu	Pro	Lys	Ile	Lys	Tyr	Tyr	Ala												
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Glu	Leu	Cys	Ala	Pro	Pro	Gly	Asn	Ser	Asp	Pro	Glu	Gln	Leu	Lys	Lys												
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Glu	Leu	Asn	Glu	Leu	Val	Ser	Ala	Ile	Glu	Glu	His	Phe	Phe	Gln	Pro												
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<210> 4177

<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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<210> 4178

<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu
      50           55           60
Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
65           70           75           80
His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
      85           90           95
Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu
      100          105          110
Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
      115          120          125
Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
      130          135          140
Cys Ala Lys Gln Asp Trp Leu Ile Leu His Ile Pro Asp Ala His Leu
145          150          155          160
Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln
      165          170          175
Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
      180          185          190
Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
      195          200          205
Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
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225          230          235          240
Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe
      245          250          255
His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr
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Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
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Leu Val His Asn Leu Arg Lys Met Met Lys Asn Asp Trp His Gly Gly
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Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
305          310          315          320
Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
      325          330          335
Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
      340          345          350
Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
      355          360          365
Glu Lys Ala Pro Thr Glu Glu Gly Lys Lys Glu Leu Leu Phe Leu Ser
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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180
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300
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780
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960
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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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			20					25					30		
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
		35					40					45			
Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
	50					55					60				
Val	Ile	Thr	Gly	Arg	His	Trp	Leu	Ala	Arg	Glu	Tyr	Val	Trp	Phe	Leu
65					70					75				80	
Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
			85						90				95		
Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
		100						105					110		
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
	115					120						125			
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
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Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
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Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
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<210> 4181

<211> 735

<212> DNA

<213> Homo sapiens

<400> 4181

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600
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<210> 4182

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4182

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<210> 4183
<211> 1129
<212> DNA
<213> Homo sapiens
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 1020
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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro	35	40	45	
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr	50	55	60	
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala	65	70	75	80
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser	85	90	95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser	100	105	110	
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp	115	120	125	
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln	130	135	140	
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg	145	150	155	160
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg	165	170	175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys	180	185	190	
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu	195	200	205	
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr	210	215	220	
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln	225	230	235	240
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn	245	250	255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro	260	265	270	
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu				

275	280	285
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290	295	300
Leu Gln Gln Asn Thr Ser Val Ala Thr Lys Gln Pro Gln Thr Ser Val		
305	310	315
Val Gln Asn Gln Gln Gln Ile Ser Gln Gln Gly Pro Ile Tyr Asp Glu		320
	325	330
Val Glu Leu Asp Ala Leu Ala Glu Ile Glu Arg Ile Glu Arg Glu Ser		335
	340	345
Ala Ile Glu Arg Glu Arg Phe Ser Lys Glu Val Gln Asp Lys Asp Lys		350
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Pro Leu Lys Lys Lys Lys		365
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55						60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65				70					75					80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85					90					95		
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
		100					105						110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
	115					120						125			
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
	130					135					140				
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
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	210				215						220				
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225				230					235					240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

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 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
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 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
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 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
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<210> 4187
 <211> 1087
 <212> DNA
 <213> Homo sapiens

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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
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Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
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Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
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Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
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Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
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Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
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Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165					170					175		
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
		180					185					190			
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195					200						205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
	210				215					220					
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225				230					235					240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
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<210> 4189

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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<210> 4190
 <211> 523
 <212> PRT
 <213> Homo sapiens

<400> 4190

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Asp	Glu	Thr	Asn	Lys	Gly	Thr	Lys	Thr	Glu	Gly	Glu	Thr	Glu	Val	Lys
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Lys	Asp	Glu	Ala	Gly	Glu	Asn	Tyr	Ser	Lys	Asp	Gln	Gly	Gly	Arg	Thr
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Leu	Cys	Gly	Val	Met	Arg	Ile	Gly	Leu	Val	Ala	Lys	Gly	Leu	Leu	Ile
				85					90					95	
Lys	Asp	Asp	Met	Asp	Leu	Glu	Leu	Val	Leu	Met	Cys	Lys	Asp	Lys	Pro
			100					105					110		
Thr	Glu	Thr	Leu	Leu	Asn	Thr	Val	Lys	Asp	Asn	Leu	Pro	Ile	Gln	Ile
		115					120						125		
Gln	Lys	Leu	Thr	Glu	Glu	Lys	Tyr	Gln	Val	Glu	Gln	Cys	Val	Asn	Glu
	130					135					140				
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Val	Ile	Leu	Thr	Ser	Pro	Leu	Ile	Arg	Asp	Glu	Leu	Glu	Lys	Lys	Asp
				165					170					175	
Gly	Glu	Asn	Val	Ser	Met	Lys	Asp	Pro	Pro	Asp	Leu	Leu	Asp	Arg	Gln
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Lys	Cys	Leu	Asn	Ala	Leu	Ala	Ser	Leu	Arg	His	Ala	Lys	Trp	Phe	Gln
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Ile	Thr	His	Ser	Ala	Gln	His	Ala	Leu	Arg	Leu	Ser	Ala	Phe	Gly	Gln
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Ile	Tyr	Lys	Val	Leu	Glu	Met	Asp	Pro	Leu	Pro	Ser	Ser	Lys	Pro	Phe
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Gln	Lys	Tyr	Ser	Trp	Ser	Val	Thr	Asp	Lys	Glu	Gly	Ala	Gly	Ser	Ser

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Leu	Gln	Tyr	Lys	Leu	Leu	Ser	Gln	Ser	Gly	Pro	Val	His	Ala	Pro	Val
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Phe	Thr	Met	Ser	Val	Asp	Val	Asp	Gly	Thr	Thr	Tyr	Glu	Ala	Ser	Gly
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Pro	Ser	Lys	Lys	Thr	Ala	Lys	Leu	His	Val	Ala	Val	Lys	Val	Leu	Gln
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Ala	Met	Gly	Tyr	Pro	Thr	Gly	Phe	Asp	Ala	Asp	Ile	Glu	Cys	Met	Ser
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Ser	Asp	Glu	Lys	Arg	Arg	Gly	Leu	Lys	Tyr	Glu	Leu	Ile	Ser	Glu	Thr
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Gly	Gly	Ser	His	Asp	Lys	Arg	Phe	Val	Met	Glu	Val	Glu	Val	Asp	Gly
			485						490					495	
Gln	Lys	Phe	Arg	Gly	Ala	Gly	Pro	Asn	Lys	Lys	Val	Ala	Lys	Ala	Ser
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<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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<212> PRT

<213> Homo sapiens

<400> 4192

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 35 40 45
 Ala Ser Ile Ala Thr Ala Ser Ala Ser Ala Gln Ala Arg Asn His Val
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 Asp Ala Gln Val Gln Thr Glu Ala Pro Val Pro Val Ser Val Gln Pro
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 Pro Ser Gln Tyr Asp Ile Pro Arg Leu Ala Ala Phe Leu Arg Arg Val
 85 90 95
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 Phe Asp Gly Phe Glu Val Asn Trp Thr Glu Gln Gln Gln Met Val Ser

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Ala	Val	Val	Glu	Val	Pro	Ser	Ala	Val	Leu	Cys	Leu	Ala	Phe	His	Pro	
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Lys	Tyr	Leu	Phe	Ala	Val	Arg	Trp	Ser	Pro	Val	Arg	Pro	Leu	Val	Phe	
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<210> 4193

<211> 6439

<212> DNA

<213> Homo sapiens

<400> 4193

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4195

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Cys	Ala	Gly	Ile	Leu	Ser	Thr	Ala	Arg	His	Leu	Thr	Ile	Glu	Gln	Lys

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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 <213> Homo sapiens

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 50 55 60
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<212> DNA

<213> Homo sapiens

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<211> 829

<212> PRT

<213> Homo sapiens

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Val Thr Gly Leu Tyr Pro His His Arg Ser Leu Ser Gly Cys Pro His			
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Pro Gly Val Lys Ser Pro Asp Ala Ser Gln Arg His Ser Ser Thr Ser			
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Ala Pro Ser Ser Ser Met Thr Ser Pro Gln Ser Ser Gln Ala Ser Arg			
420	425	430	
Gln Asp Glu Trp Asp Arg Pro Leu Asp Tyr Thr Lys Pro Ser Arg Leu			

435	440	445
Arg Glu Glu Glu Pro Glu Glu Ser Glu Pro Ala Ala His Ser Phe Ala		
450	455	460
Ser Ser Glu Ala Asp Asp Gln Glu Val Ser Glu Glu Asn Phe Glu Glu		
465	470	475
Arg Lys Tyr Pro Gly Glu Val Thr Leu Thr Asn Phe Lys Leu Lys Phe		
485	490	495
Leu Ser Lys Asp Ile Lys Lys Glu Leu Leu Thr Cys Pro Thr Pro Gly		
500	505	510
Cys Asp Gly Ser Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser		
515	520	525
Leu Ser Gly Cys Pro Leu Ala Asp Lys Ser Leu Arg Asn Leu Met Ala		
530	535	540
Ala His Ser Ala Asp Leu Lys Cys Pro Thr Pro Gly Cys Asp Gly Ser		
545	550	555
Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser Leu Ser Gly Cys		
565	570	575
Pro Arg Ala Lys Lys Ser Gly Val Lys Val Ala Pro Thr Lys Asp Asp		
580	585	590
Lys Glu Asp Pro Glu Leu Met Lys Cys Pro Val Pro Gly Cys Val Gly		
595	600	605
Leu Gly His Ile Ser Gly Lys Tyr Ala Ser His Arg Ser Ala Ser Gly		
610	615	620
Cys Pro Leu Ala Ala Arg Arg Gln Lys Glu Gly Ser Leu Asn Gly Ser		
625	630	635
Ser Phe Ser Trp Lys Ser Leu Lys Asn Glu Gly Pro Thr Cys Pro Thr		
645	650	655
Pro Gly Cys Asp Gly Ser Gly His Ala Asn Gly Ser Phe Leu Thr His		
660	665	670
Arg Ser Leu Ser Gly Cys Pro Arg Ala Thr Phe Ala Gly Lys Lys Gly		
675	680	685
Lys Leu Ser Gly Asp Glu Val Leu Ser Pro Lys Phe Lys Thr Ser Asp		
690	695	700
Val Leu Glu Asn Asp Glu Glu Ile Lys Gln Leu Asn Gln Glu Ile Arg		
705	710	715
Asp Leu Asn Glu Ser Asn Ser Glu Met Glu Ala Ala Met Val Gln Leu		
725	730	735
Gln Ser Gln Ile Ser Ser Met Glu Lys Asn Leu Lys Asn Ile Glu Glu		
740	745	750
Glu Asn Lys Leu Ile Glu Glu Gln Asn Glu Ala Leu Phe Leu Glu Leu		
755	760	765
Ser Gly Leu Ser Gln Ala Leu Ile Gln Ser Leu Ala Asn Ile Arg Leu		
770	775	780
Pro His Met Glu Pro Ile Cys Glu Gln Asn Phe Asp Ala Tyr Val Ser		
785	790	795
Thr Leu Thr Asp Met Tyr Ser Asn Gln Asp Pro Glu Asn Lys Asp Leu		
805	810	815
Leu Glu Ser Ile Lys Gln Ala Val Arg Gly Ile Gln Val		
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<210> 4207

<211> 1016

<212> DNA

<213> Homo sapiens

<400> 4207

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 180
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 300
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 420
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 480
 caatactttt aaaatcattt cccacaagct ctctcttatt agtatcagac tggccctcat
 540
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 780
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 840
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 900
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<210> 4208

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4208

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			20					25					30		
Ile	Asp	Arg	Arg	Thr	Ser	Thr	Pro	Asn	Ser	Arg	Ile	Gln	Arg	Ala	Thr
			35				40					45			
Thr	Val	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Leu	Cys	Thr	Cys	Thr	Glu	Pro
			50			55					60				
Ile	Arg	Lys	Val	Pro	Val	Ser	Lys	Thr	Pro	Lys	Lys	Thr	His	Ser	Asp
65					70					75					80
Ala	Lys	Lys	Gly	Gln	Asn	Arg	Ser	Ser	Asn	Tyr	Leu	Ser	Cys	Arg	Thr

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1980
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2160
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2220
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2280
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<210> 4210
 <211> 863
 <212> PRT
 <213> Homo sapiens

<400> 4210
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 Tyr Glu Glu Glu Ile Met Arg Asn Gln Phe Ser Val Lys Cys Trp Leu
 35 40 45
 Arg Tyr Ile Glu Phe Lys Gln Gly Ala Pro Lys Pro Arg Leu Asn Gln
 50 55 60
 Leu Tyr Glu Arg Ala Leu Lys Leu Leu Pro Cys Ser Tyr Lys Leu Trp
 65 70 75 80
 Tyr Arg Tyr Leu Lys Ala Arg Arg Ala Gln Val Lys His Arg Cys Val
 85 90 95
 Thr Asp Pro Ala Tyr Glu Asp Val Asn Asn Cys His Glu Arg Ala Phe
 100 105 110
 Val Phe Met His Lys Met Pro Arg Leu Trp Leu Asp Tyr Cys Gln Phe
 115 120 125
 Leu Met Asp Gln Gly Arg Val Thr His Thr Arg Arg Thr Phe Asp Arg
 130 135 140
 Ala Leu Arg Ala Leu Pro Ile Thr Gln His Ser Arg Ile Trp Pro Leu
 145 150 155 160
 Tyr Leu Arg Phe Leu Arg Ser His Pro Leu Pro Glu Thr Ala Val Arg
 165 170 175
 Gly Tyr Arg Arg Phe Leu Lys Leu Ser Pro Glu Ser Ala Glu Glu Tyr
 180 185 190
 Ile Glu Tyr Leu Lys Ser Ser Asp Arg Leu Asp Glu Ala Ala Gln Arg
 195 200 205
 Leu Ala Thr Val Val Asn Asp Glu Arg Phe Val Ser Lys Ala Gly Lys
 210 215 220
 Ser Asn Tyr Gln Leu Trp His Glu Leu Cys Asp Leu Ile Ser Gln Asn
 225 230 235 240
 Pro Asp Lys Val Gln Ser Leu Asn Val Asp Ala Ile Ile Arg Gly Gly
 245 250 255
 Leu Thr Arg Phe Thr Asp Gln Leu Gly Lys Leu Trp Cys Ser Leu Ala
 260 265 270
 Asp Tyr Tyr Ile Arg Ser Gly His Phe Glu Lys Ala Arg Asp Val Tyr
 275 280 285
 Glu Glu Ala Ile Arg Thr Val Met Thr Val Arg Asp Phe Thr Gln Val
 290 295 300
 Phe Asp Ser Tyr Ala Gln Phe Glu Glu Ser Met Ile Ala Ala Lys Met
 305 310 315 320
 Glu Thr Ala Ser Glu Leu Gly Arg Glu Glu Glu Asp Asp Val Asp Leu
 325 330 335
 Glu Leu Arg Leu Ala Arg Phe Glu His Leu Ile Ser Arg Arg Pro Leu

			340					345					350			
His	Leu	Ser	Ser	Val	Leu	Leu	Arg	Gln	Asn	Pro	His	His	Val	His	Glu	
		355					360					365				
Trp	His	Lys	Arg	Val	Ala	Leu	His	Gln	Gly	Arg	Pro	Arg	Glu	Ile	Ile	
	370					375					380					
Asn	Thr	Tyr	Thr	Glu	Ala	Val	Gln	Thr	Val	Asp	Pro	Phe	Lys	Ala	Thr	
385					390					395					400	
Gly	Lys	Pro	His	Thr	Leu	Trp	Val	Ala	Phe	Ala	Lys	Phe	Tyr	Glu	Asp	
				405					410					415		
Asn	Gly	Gln	Leu	Asp	Asp	Ala	Arg	Val	Ile	Leu	Glu	Lys	Ala	Thr	Lys	
			420					425					430			
Val	Asn	Phe	Lys	Gln	Val	Asp	Asp	Leu	Ala	Ser	Val	Trp	Cys	Gln	Cys	
		435					440					445				
Gly	Glu	Leu	Glu	Leu	Arg	His	Glu	Asn	Tyr	Asp	Glu	Ala	Leu	Arg	Leu	
	450					455					460					
Leu	Arg	Lys	Ala	Thr	Ala	Leu	Pro	Pro	Pro	Gly	Arg	Val	Phe	Asp	Gly	
465					470					475					480	
Ser	Glu	Pro	Val	Gln	Asn	Arg	Val	Tyr	Lys	Ser	Leu	Lys	Val	Trp	Ser	
				485					490						495	
Met	Leu	Ala	Asp	Leu	Glu	Glu	Ser	Leu	Gly	Thr	Phe	Gln	Ser	Thr	Lys	
			500					505					510			
Ala	Val	Tyr	Asp	Arg	Ile	Leu	Asp	Leu	Arg	Ile	Ala	Thr	Pro	Gln	Ile	
		515					520					525				
Val	Ile	Asn	Tyr	Ala	Met	Phe	Leu	Glu	Glu	His	Lys	Tyr	Phe	Glu	Glu	
	530					535					540					
Ser	Phe	Lys	Ala	Tyr	Glu	Arg	Gly	Ile	Ser	Leu	Phe	Lys	Trp	Pro	Asn	
545					550					555					560	
Val	Ser	Asp	Ile	Trp	Ser	Thr	Tyr	Leu	Thr	Lys	Phe	Ile	Ala	Arg	Tyr	
				565					570					575		
Gly	Gly	Arg	Lys	Leu	Glu	Arg	Ala	Arg	Asp	Leu	Phe	Glu	Gln	Ala	Leu	
			580					585					590			
Asp	Gly	Cys	Pro	Pro	Lys	Tyr	Ala	Lys	Thr	Leu	Tyr	Leu	Leu	Tyr	Ala	
		595					600					605				
Gln	Leu	Glu	Glu	Glu	Trp	Gly	Leu	Ala	Arg	His	Ala	Met	Ala	Val	Tyr	
	610					615					620					
Glu	Arg	Ala	Thr	Arg	Ala	Val	Glu	Pro	Ala	Gln	Gln	Tyr	Asp	Met	Phe	
625					630					635					640	
Asn	Ile	Tyr	Ile	Lys	Arg	Ala	Ala	Glu	Ile	Tyr	Gly	Val	Thr	His	Thr	
				645					650					655		
Arg	Gly	Ile	Tyr	Gln	Lys	Ala	Ile	Glu	Val	Leu	Ser	Asp	Glu	His	Ala	
			660					665					670			
Arg	Glu	Met	Cys	Leu	Arg	Phe	Ala	Asp	Met	Glu	Cys	Lys	Leu	Gly	Glu	
		675														

770		775		780
Glu Gln Leu Ala Ala	Glu Ala Glu Arg Asp Gln	Pro Leu Arg Ala Gln		
785	790	795	800	
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala				
	805	810	815	
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp				
	820	825	830	
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu				
	835	840	845	
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp				
850	855	860		

<210> 4211

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4211

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120
agctggaaaa gagacgctcc aactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgcgt gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
300
aattacactt tcaactactac tggttcctat ccttgtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
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456

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<210> 4212

<211> 81

<212> PRT

<213> Homo sapiens

<400> 4212

Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg			
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Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg			
	20	25	30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala			
	35	40	45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg			
	50	55	60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp			
65	70	75	80
Pro			

<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
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 120
 ttcccggacc cggcccggcc gccctggtac gcctgctcgt cggccttctg ggccgcggcg
 180
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 240
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 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
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 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
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 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggtt gacagaagat atggtgactg ttttaatccg ggcttgcgtg
 240
 agcatgctgg gagtccctgt ggaccagat actttgcatg ccaccctttg tttctgtttg
 300
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 360
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 420
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 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
 540
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 780
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 840
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<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

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			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35					40					45			
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
	50					55				60					
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70					75				80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85					90						95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
		100						105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130					135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

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145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

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<210> 4217
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 4217
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 360
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 420
 cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata
 480
 ccacctgtg ctgtgagtgg ccactcccat ccaacaactg agactttctg ttactggggc
 540
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 600
 cagtcctccc ctggcgcgcg
 619

<210> 4218
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 4218
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		20					25						30		
Gly	Pro	Gln	Arg	Cys	Leu	Ser	Leu	Cys	Pro	Cys	Leu	Leu	Ser	Arg	Thr
		35					40					45			
His	Thr	His	Thr	Ser	Gln	Pro	Gln	Ala	His	Gln	Ser	Leu	Ser	Val	Ser
	50					55					60				
Leu	Ser	Leu	Ser	Leu	Ser	Leu	Thr	His	Ile	His	Leu	Ser	His	Arg	Pro
65					70					75				80	
Thr	Arg	Val	Ser	Leu	Val	Pro	Gly	Ser	Ser	Leu	Ser	His	Thr	Pro	
			85					90					95		
Thr	His	Thr	His	Thr	Ala	Gln	Pro	Gln	Ala	His	Glu	Gly	Val	Ser	Leu
			100					105					110		
Ser	Leu	Ser	Leu	Ser	His	Thr	His	Thr	His	Thr	His	Thr	Pro	Val	Gln
		115					120					125			
Leu	His	Arg	Gly	Leu	Gly	Gln	Glu	Thr	Asp	Leu	Asn	Thr	His	Thr	Thr
	130					135					140				
Leu	Cys	Cys	Glu	Trp	Pro	Leu	Pro	Ser	Asn	Asn					
145					150					155					

<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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ngcggccgcg cacctgctcc cgtcgcccta cagcaagatc acgccccgcg ggaggcccca
60
ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctcccgcg
120
ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggtt acgagagcgt
180
gatgcgggac agcgaggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggttctcag agacggaggc ttatcccagc actatccctg gacacctott cccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gagcagcccc
420
aggggccttg gggaaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgcctg
480
cagcggcgac gaggggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag
600
gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttgagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

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<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220

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Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1           5           10           15
Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
      20           25           30
Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
      35           40           45
Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
      50           55           60
Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
65           70           75           80
Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
      85           90           95
Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
      100          105          110
Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
      115          120          125
Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
      130          135          140
Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
145          150          155          160
Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
      165          170          175
Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
      180          185          190
Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
      195          200          205
Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
      210          215          220
Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
225          230          235          240
Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
      245          250          255
Met Leu

```

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221

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aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
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tcagcccat cttggcacag ttctcatgca gaatattgca cccagtgtga actaacgcta
120
gaagcttcaa actgtataaa tttaaagtga ttgcatatt ataaaaataa agataaacat
180
atacatatatt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
240

```

ttaacagaac tgaaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgagggt cagggtgtta aacatttgct
 420
 ccatgttctc gtccatgctt cccccacca cccctctccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtgagtgc
 540
 agagggtctg ccagggtcaa aagatgggtc aggtgttcag atgtctctt tttccatgg
 600
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattggtgc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
 agcactatct tttccactta attttccaag aaagtatgaa gatacttgga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35					40					45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
		50				55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65					70					75					80
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85						90					95	
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
			100					105					110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
		115					120						125		

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

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 60
 gaggccgtgg cctatttgca ctcactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc tttcaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaatctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtca caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgtc tgtgcccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacggctccg ggcaccagag
 660
 cagtccagca cggctgcagc ccagtcggcc tcagccacag aactgccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgccca cccagccac tgatggcagt
 780
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1				5				10					15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
			20					25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50					55					60				
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70						75				80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90						95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120					125				
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

```

<210> 4225
 <211> 470
 <212> DNA
 <213> Homo sapiens

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<400> 4225
nntgtacaag aaagtgagcc agtcatcgctc aatattcaag tgatggatgc aaatgataac
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acgccaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacaggggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaatgg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggggagac ttcacatca ataaaacaac agggcttacc
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcggataatg ctctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttccaccaa ataatcaaag cctcctcgc ttcccacagc tgatgtatag ccttgaaatt
420
agtgaagcca tgagggttgg tgctgtttta ttaaacttac aggcaactga
470

```

<210> 4226
 <211> 156
 <212> PRT
 <213> Homo sapiens

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<400> 4226
Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
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Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20     25     30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35     40     45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50     55     60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
		85		90		95									
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
		100		105		110									
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
		115		120		125									
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
		130		135		140									
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145				150						155					

<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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nnaagcttat ggccagtgtt aatttgttat ttcttaaata actttccctt tcatttttaa
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attataaatt taacttctaa catgttttat ggttaaaatt gtactttttt cctttagcga
120
cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccgaaccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaaa tattttccac aaggagaaaa atgagtcagc catagtcagt
300
gcaatccaga tattgctgac tttacttgag acacgacgac caacatttga aggccatata
360
gagatctgcc caccaggcat gagccattca gcttgctcag taaacaagag tgttctagaa
420
gccatcagag gaagacttgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480
gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc
540
attaggttga tatccagcct gcttcaaacc aataccagca gtataaatgg ggaccttatg
600
gagctgaata gcattggagt catattgaac atgttcttca agtatacatg gaataacttt
660
ttgcatacac aagtggaaat ttgtattgca ctgattcttg caagtccttt tgaaaacaca
720
gaaaatgcc caattaccga tcaagactcc actggtgata atttggtatt aaaacatctt
780
ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840
caggctgagg gaggaagacg gcatgggttac atgggacacc taacgaggat agctaactgt
900
atcgtgcaca gcaactgaca gggccccaac agtgcattag tgcagcagct tatcaaaggt
960
aagttatttg tgaaatttga attacatttt tgttgggttg caggaaggat ttaagggtca
1020
agtagaaatg catgtagcat ttttaatagt gatttggggg acttctttat atttggcaaa
1080

```

ttatgtatgtt gaatgagggtt cttgagaatg tgtttgaaca ggggtgtttt ttgggttgta
 1140
 ttttatgttc atgtagttac agaccattcc ataagcattg gcaggcttgg ctggattca
 1199

<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

Arg	His	Ser	Asn	Ala	Ser	Gln	Ser	Leu	Cys	Glu	Ile	Val	Arg	Leu	Ser
1			5						10					15	
Arg	Asp	Gln	Met	Leu	Gln	Ile	Gln	Asn	Ser	Thr	Glu	Pro	Asp	Pro	Leu
			20					25					30		
Leu	Ala	Thr	Leu	Glu	Lys	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Leu	Ser	Asn
			35				40					45			
Ile	Phe	His	Lys	Glu	Lys	Asn	Glu	Ser	Ala	Ile	Val	Ser	Ala	Ile	Gln
	50					55					60				
Ile	Leu	Leu	Thr	Leu	Leu	Glu	Thr	Arg	Arg	Pro	Thr	Phe	Glu	Gly	His
65					70					75				80	
Ile	Glu	Ile	Cys	Pro	Pro	Gly	Met	Ser	His	Ser	Ala	Cys	Ser	Val	Asn
			85					90						95	
Lys	Ser	Val	Leu	Glu	Ala	Ile	Arg	Gly	Arg	Leu	Gly	Ser	Phe	His	Glu
			100					105					110		
Leu	Leu	Leu	Glu	Pro	Pro	Lys	Lys	Ser	Val	Met	Lys	Thr	Thr	Trp	Gly
			115				120						125		
Val	Leu	Asp	Pro	Pro	Val	Gly	Asn	Thr	Arg	Leu	Asn	Val	Ile	Arg	Leu
			130				135					140			
Ile	Ser	Ser	Leu	Leu	Gln	Thr	Asn	Thr	Ser	Ser	Ile	Asn	Gly	Asp	Leu
145					150					155				160	
Met	Glu	Leu	Asn	Ser	Ile	Gly	Val	Ile	Leu	Asn	Met	Phe	Phe	Lys	Tyr
			165					170						175	
Thr	Trp	Asn	Asn	Phe	Leu	His	Thr	Gln	Val	Glu	Ile	Cys	Ile	Ala	Leu
			180					185					190		
Ile	Leu	Ala	Ser	Pro	Phe	Glu	Asn	Thr	Glu	Asn	Ala	Thr	Ile	Thr	Asp
			195				200					205			
Gln	Asp	Ser	Thr	Gly	Asp	Asn	Leu	Leu	Leu	Lys	His	Leu	Phe	Gln	Lys
			210			215					220				
Cys	Gln	Leu	Ile	Glu	Arg	Ile	Leu	Glu	Ala	Trp	Glu	Met	Asn	Glu	Lys
225					230					235				240	
Lys	Gln	Ala	Glu	Gly	Gly	Arg	Arg	His	Gly	Tyr	Met	Gly	His	Leu	Thr
			245					250						255	
Arg	Ile	Ala	Asn	Cys	Ile	Val	His	Ser	Thr	Asp	Lys	Gly	Pro	Asn	Ser
			260					265					270		
Ala	Leu	Val	Gln	Gln	Leu	Ile	Lys	Gly	Lys	Leu	Phe	Val	Lys	Phe	Glu
			275				280					285			
Leu	His	Phe	Cys	Trp	Val	Ala	Gly	Arg	Ile						
			290				295								

<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 4229

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120
ggaaacatga agtcggctct cacctggaag caccggaagg agcacgccat cccccacctg
180
gttctgggccc ggaacctccc cgggggagcc tggcactcca tcgaaggctc catggtgatc
240
ctgagccaag gccagtggat ggggctcccg gacctggagg tcaaggactg gatgcagaag
300
aagcgaagag gtcttcgcaa cagccgggccc actgccgggg acatcgccca ctactacagg
360
gactacgtgg tcaagaaggg tctggggcat aactttgtgt ccggtgctgt agtcacagcc
420
gtggagtggg ggacccccga tcccagcagc tgtggggccc aggactccag cccctcttc
480
caggtgagcg gcttcttgac caggaaccag gccagcagc ccttctcgct gtgggcccgc
540
aacgtggtcc tcgccacagg cacgttcgac agcccggccc ggctgggcat ccccggggag
600
gccctgccct tcateccacca tgagctgtct gccctggagg ccgccacaag ggtgggtgcg
660
gtgaccccg cctcagaccc tgtcctcatc attggcgcg ggctgtcagc ggccgacgcc
720
gtcctctacg cccgccacta caacatcccg gtgatccatg ccttccgccg ggccgtggac
780
gacctggcc tgggtgttcaa ccagctgccc aagatgctgt accccgagta ccacaagggtg
840
caccagatga tgcgggagca gtccatcctg tcgcccagcc cctatgaggg ttaccgcagc
900
ctccccaggc accagctgct gtgcttcaag gaagactgcc aggcctgtgt ccaggacctc
960
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gacctctcct tcctgcctgg ggcaggggct gactttgcag tggatcctga ccagccgctg
1080
agcgccaaga ggaaccccat tgacgtggac cccttcacct accagagcac ccgccaggag
1140
ggcctgtacg ccatggggcc gctggccggg gacaacttcg tgaggtttgt gcaggggggc
1200
gccttggtg tggccagctc cctgctaagg aaggagacca ggaagccacc ctaacactcg
1260
gccagacccg ctggctccca ggccctgaga ggacagagat gaccacatcc ctgctggatg
1320
caggaccctg ccaaagatgc cccggggagg ggtgtcagcc cacgttgctg gcctttgggg
1380
tcaagaggag tagggatccc aggtgcctt ggacttagac cagtgtctga ggttggaactt
1440
agaccagtgt gtgaggtggt aacagcggcc gcagcagggg gttggcctag acctgggatt
1500
tgtggggaaa gctgctggtg tgaccagctg agcaccagc caggagacct gcagccctgc
1560

gccttccaga agcaggtccc aaataaagcc agtgcccacc tgaaaaaaaa aa
1612

<210> 4230

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

Xaa	Gly	Val	Ser	Ile	Leu	Asp	Gln	Asp	Leu	Asp	Tyr	Leu	Ser	Glu	Gly
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Leu	Glu	Gly	Arg	Ser	Gln	Ser	Pro	Val	Ala	Leu	Leu	Phe	Asp	Ala	Leu
			20					25					30		
Leu	Arg	Pro	Asp	Thr	Asp	Phe	Gly	Gly	Asn	Met	Lys	Ser	Val	Leu	Thr
		35					40					45			
Trp	Lys	His	Arg	Lys	Glu	His	Ala	Ile	Pro	His	Val	Val	Leu	Gly	Arg
	50					55					60				
Asn	Leu	Pro	Gly	Gly	Ala	Trp	His	Ser	Ile	Glu	Gly	Ser	Met	Val	Ile
65					70					75				80	
Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp
			85					90						95	
Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala
			100					105					110		
Gly	Asp	Ile	Ala	His	Tyr	Tyr	Arg	Asp	Tyr	Val	Val	Lys	Lys	Gly	Leu
		115					120					125			
Gly	His	Asn	Phe	Val	Ser	Gly	Ala	Val	Val	Thr	Ala	Val	Glu	Trp	Gly
	130					135					140				
Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe
145					150					155				160	
Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser
			165					170						175	
Leu	Trp	Ala	Arg	Asn	Val	Val	Leu	Ala	Thr	Gly	Thr	Phe	Asp	Ser	Pro
		180						185					190		
Ala	Arg	Leu	Gly	Ile	Pro	Gly	Glu	Ala	Leu	Pro	Phe	Ile	His	His	Glu
	195					200					205				
Leu	Ser	Ala	Leu	Glu	Ala	Ala	Thr	Arg	Val	Gly	Ala	Val	Thr	Pro	Ala
	210					215					220				
Ser	Asp	Pro	Val	Leu	Ile	Gly	Ala	Gly	Leu	Ser	Ala	Ala	Asp	Ala	
225				230					235				240		
Val	Leu	Tyr	Ala	Arg	His	Tyr	Asn	Ile	Pro	Val	Ile	His	Ala	Phe	Arg
			245					250					255		
Arg	Ala	Val	Asp	Asp	Pro	Gly	Leu	Val	Phe	Asn	Gln	Leu	Pro	Lys	Met
		260					265						270		
Leu	Tyr	Pro	Glu	Tyr	His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser
		275					280					285			
Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His
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			325					330					335		
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<210> 4231

<211> 1588

<212> DNA

<213> Homo sapiens

<400> 4231

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<210> 4232

<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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Asn	Leu	Glu	Leu	Glu	Lys	Asp	Leu	Arg	Lys	Lys	Ala	Glu	Ser	Phe	Ala
			100					105						110	
Gln	Glu	Met	Phe	Leu	Glu	Pro	Asn	Gln	Gly	Lys	Lys	Thr	Lys	Pro	Pro
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Gln	Lys	Val	Lys	Glu	Leu	Glu	Glu	Gln	Leu	Glu	Asn	Glu	Thr	Leu	His
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Lys	Glu	Ile	His	Asn	Leu	Lys	Gln	Gln	Leu	Glu	Leu	Leu	Glu	Glu	Asp
			180					185					190		
Lys	Lys	Glu	Leu	Glu	Leu	Lys	Tyr	Gln	Asn	Ser	Glu	Glu	Lys	Ala	Arg
			195				200					205			
Asn	Leu	Lys	His	Ser	Val	Asp	Glu	Leu	Gln	Lys	Arg	Val	Asn	Gln	Ser
			210				215					220			
Glu	Asn	Ser	Val	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro
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<210> 4233
<211> 2827
<212> DNA
<213> Homo sapiens
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660

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<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
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Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
65				70					75					80	
Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85						90					95	
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
			100					105					110		
Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
		115					120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
	130					135					140				
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			165					170					175		
Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
		180					185					190			
Val	Thr	Lys	Leu	Glu	His	Asp	Ala	Glu	Gln	Ala	Lys	Val	Glu	Leu	Thr
	195					200					205				
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210	215	220
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Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Glu Lys Arg Ala Asn Glu		255
	260	265
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln		270
	275	280
Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val		285
	290	295
Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly		300
305	310	315
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		320
	325	330
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys		335
	340	345
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu		350
	355	360
Asn Gln Arg Gln Glu Leu Glu Glu Leu Glu Ala Asp Leu Lys Lys Arg		365
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Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His		380
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	405	410
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu		415
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Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile		430
	435	440
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys		445
	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		460
465	470	475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala		480
	485	490
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln		495
	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		525
	530	535
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg		540
545	550	555
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		560
	565	570
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		575
	580	585
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		590
	595	600
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile		605
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Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys		620
625	630	635
Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu		640

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<211> 198

<212> PRT

<213> Homo sapiens

<400> 4236

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			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr
		35				40					45				
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
		50				55				60					
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
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Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
				85				90						95	
Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
			100					105					110		
Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
		115					120					125			
Met	Ile	Arg	Ile	Leu	His	Gly	Glu	Val	Asn	Lys	Val	Lys	Leu	Asp	Gln
		130				135					140				
Lys	Arg	Leu	Glu	Gln	Glu	Leu	Asp	Phe	Ile	Leu	Ser	Gln	Gln	Gln	Glu
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Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165					170					175		
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
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<210> 4237

<211> 560

<212> DNA

<213> Homo sapiens

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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

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			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
		35				40					45				
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
	50					55				60					
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65				70					75					80	
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
			85					90						95	
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
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<210> 4239

<211> 3127

<212> DNA

<213> Homo sapiens

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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

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 Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met
 65 70 75 80
 Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln
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 Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro
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 Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr
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 Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val
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 Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu
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 Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile
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 Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe
 225 230 235 240
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 Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val
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 Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu
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 Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg
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 305 310 315 320
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 385 390 395 400
 Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser
 405 410 415
 Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro
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 Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Cys Ser Ser Glu

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Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala		
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Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val		
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Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp		
690	695	700
Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys		
705	710	715
Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro		
725	730	735
Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu		
740	745	750
Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser		
755	760	765
Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg		
770	775	780
Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys		
785	790	795
Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr		
805	810	815
Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser		
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<210> 4241
 <211> 479
 <212> DNA
 <213> Homo sapiens

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 Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu
 50 55 60
 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Phe Ile Gln
 65 70 75 80
 Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser
 85 90 95
 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
 100 105 110
 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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 Asp Arg Ala Arg Cys Pro Gln Glu Arg Thr Arg Cys Trp Cys Ser Tyr
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<210> 4243
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 <212> DNA
 <213> Homo sapiens

<400> 4243

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 <212> PRT
 <213> Homo sapiens

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 Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
 50 55 60
 Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
 65 70 75 80
 Leu Phe Val Val Arg Gln Lys Glu Ala Val Val Ser Phe Gln Val Pro
 85 90 95
 Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
 100 105 110
 Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
 115 120 125
 Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
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 Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
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 Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
 180 185 190
 Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
 195 200 205
 Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
 210 215 220
 Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
 225 230 235 240
 Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
 245 250 255
 Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
 260 265 270
 Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
 275 280 285
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 Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
 305 310 315 320
 Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
 325 330 335
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 340 345 350
 Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
 355 360 365
 Val Ser Gly Ser Thr Asp Gly Leu Val Asp Ser Ala Gly Thr Gly Asp

370 375 380
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 Ser Gly Gln Met Arg Gln Leu Cys Ile Ala Met Gly Arg Ser Phe Glu
 405 410 415
 Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu
 420 425 430
 Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile
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 465 470 475 480
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 Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp
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 580 585 590
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 595 600 605
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 Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile
 625 630 635 640
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 660 665 670
 Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly
 675 680 685
 Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln
 690 695 700
 Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly
 705 710 715 720
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 725 730 735
 Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu
 740 745 750
 Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg
 755 760 765
 Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp
 770 775 780
 Gly Phe Ala Leu Phe Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys
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<212> DNA
<213> Homo sapiens
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<212> PRT
<213> Homo sapiens
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Asn	Ala	Gly	Glu	Glu	Cys	Lys	Ser	Leu	Arg	Gly	Gln	Leu	Glu	Gln	
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Thr	Gln	Ala	Asp	Met	Gly	Glu	Lys	Leu	Ser	Cys	Thr	Ser	Asn	His	Leu
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Leu	Arg	Glu	Asp	Leu	Glu	Arg	Thr	Gln	Lys	Glu	Leu	Glu	Lys	Ala	Thr
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<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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<211> 1297

<212> PRT

<213> Homo sapiens

<400> 4248

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Gly	Glu	Asp	Arg	Arg	Gly	Ala	Pro	Ala	Gly	Ala	Thr	Ser	Phe	Pro	Ala
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Ala	Pro	Ser	Pro	Leu	Pro	Leu	His	Thr	His	Ala	Arg	Ser	Leu	Ala	Gly
		35					40					45			
Ala	Arg	Thr	Pro	Pro	Ala	Pro	Asp	Pro	His	Leu	Gly	Gly	Arg	His	Thr
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Leu	Gly	Ser	Pro	Ser	Arg	Gly	Ser	Arg	Ser	Gly	Met	Glu	Ala	Ala	Arg
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Thr	Glu	Arg	Pro	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Leu	Val	Arg	Thr	Gly
			85					90						95	
Leu	Leu	Leu	Leu	Ser	Thr	Trp	Val	Leu	Ala	Gly	Ala	Glu	Ile	Thr	Trp
			100					105					110		
Asp	Ala	Thr	Gly	Gly	Pro	Gly	Arg	Pro	Ala	Ala	Pro	Ala	Ser	Arg	Pro
		115				120						125			
Pro	Ala	Leu	Ser	Pro	Leu	Ser	Pro	Arg	Ala	Val	Ala	Ser	Gln	Trp	Pro
		130				135					140				
Glu	Glu	Leu	Ala	Ser	Ala	Arg	Arg	Ala	Ala	Val	Leu	Gly	Arg	Arg	Ala
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Gly	Pro	Glu	Leu	Leu	Pro	Gln	Gln	Gly	Gly	Gly	Arg	Gly	Gly	Glu	Met
			165					170						175	
Gln	Val	Glu	Ala	Gly	Gly	Thr	Ser	Pro	Ala	Gly	Glu	Arg	Arg	Gly	Arg
			180					185					190		
Gly	Ile	Pro	Ala	Pro	Ala	Lys	Leu	Gly	Gly	Ala	Arg	Arg	Ser	Arg	Arg
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Ala	Gln	Pro	Pro	Ile	Thr	Gln	Glu	Arg	Gly	Asp	Ala	Trp	Ala	Thr	Ala

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Pro Ala Asp Gly Ser Arg	Gly Ser Arg Pro	Leu Ala Lys Gly Ser Arg		
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Arg Leu Pro Ser Thr Ser Phe Ala	Leu Thr Gly Asp Ser Ala His Asn			
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Gln Ala Met Val His Trp Ser Gly	His Asn Ser Ser Val Ile Leu Ile			
	275	280	285	
Leu Thr Lys Leu Tyr Asp Phe Asn	Leu Gly Ser Val Thr Glu Ser Ser			
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Leu Trp Arg Ser Thr Asp Tyr Gly	Thr Thr Tyr Glu Lys Leu Asn Asp			
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Lys Val Gly Leu Lys Thr Val Leu	Ser Tyr Leu Tyr Val Asn Pro Thr			
	325	330	335	
Asn Lys Arg Lys Ile Met Leu Leu	Ser Asp Pro Glu Met Glu Ser Ser			
	340	345	350	
Ile Leu Ile Ser Ser Asp Glu Gly	Ala Thr Tyr Gln Lys Tyr Arg Leu			
	355	360	365	
Thr Phe Tyr Ile Gln Ser Leu Leu	Phe His Pro Lys Gln Glu Asp Trp			
	370	375	380	
Val Leu Ala Tyr Ser Leu Asp Gln	Lys Leu Tyr Ser Ser Met Asp Phe			
385	390	395	400	
Gly Arg Arg Trp Gln Leu Met His	Glu Arg Ile Thr Pro Asn Arg Phe			
	405	410	415	
Tyr Trp Ser Val Ala Gly Leu Asp	Lys Glu Ala Asp Leu Val His Met			
	420	425	430	
Glu Val Arg Thr Thr Asp Gly Tyr	Ala His Tyr Leu Thr Cys Arg Ile			
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Gln Glu Cys Ala Glu Thr Thr Arg	Ser Gly Pro Phe Ala Arg Ser Ile			
	450	455	460	
Asp Ile Ser Ser Leu Val Gln Asp	Glu Tyr Ile Phe Ile Gln Val			
465	470	475	480	
Thr Thr Ser Gly Arg Ala Ser Tyr	Tyr Val Ser Tyr Arg Arg Glu Ala			
	485	490	495	
Phe Ala Gln Ile Lys Leu Pro Lys	Tyr Ser Leu Pro Lys Asp Met His			
	500	505	510	
Ile Ile Ser Thr Asp Glu Asn Gln	Val Phe Ala Ala Val Gln Glu Trp			
	515	520	525	
Asn Gln Asn Asp Thr Tyr Asn Leu	Tyr Ile Ser Asp Thr Arg Gly Ile			
	530	535	540	
Tyr Phe Thr Leu Ala Met Glu Asn	Ile Lys Ser Ser Arg Gly Leu Met			
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Gly Asn Ile Ile Ile Glu Leu Tyr	Glu Val Ala Gly Ile Lys Gly Ile			
	565	570	575	
Phe Leu Ala Asn Lys Lys Val Asp	Asp Gln Val Lys Thr Tyr Ile Thr			
	580	585	590	
Tyr Asn Lys Gly Arg Asp Trp Arg	Leu Leu Gln Ala Pro Asp Val Asp			
	595	600	605	
Leu Arg Gly Ser Pro Val His Cys	Leu Leu Pro Phe Cys Ser Leu His			
	610	615	620	
Leu His Leu Gln Leu Ser Glu Asn	Pro Tyr Ser Ser Gly Arg Ile Ser			
625	630	635	640	
Ser Lys Glu Thr Ala Pro Gly Leu	Val Val Ala Thr Gly Asn Ile Gly			

Pro	Glu	Leu	Ser	Tyr	Thr	Asp	Ile	Gly	Val	Phe	Ile	Ser	Ser	Asp	Gly
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Gly	Asn	Thr	Trp	Arg	Gln	Ile	Phe	Asp	Glu	Glu	Tyr	Asn	Val	Trp	Phe
			675				680					685			
Leu	Asp	Trp	Gly	Gly	Ala	Leu	Val	Ala	Met	Lys	His	Thr	Pro	Leu	Pro
			690			695					700				
Val	Arg	His	Leu	Trp	Val	Ser	Phe	Asp	Glu	Gly	His	Ser	Trp	Asp	Lys
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Tyr	Gly	Phe	Thr	Ser	Val	Pro	Leu	Phe	Val	Asp	Gly	Ala	Leu	Val	Glu
				725					730					735	
Ala	Gly	Met	Glu	Thr	His	Ile	Met	Thr	Val	Phe	Gly	His	Phe	Ser	Leu
			740					745					750		
Arg	Ser	Glu	Trp	Gln	Leu	Val	Lys	Val	Asp	Tyr	Lys	Ser	Ile	Phe	Ser
			755				760					765			
Arg	His	Cys	Thr	Lys	Glu	Asp	Tyr	Gln	Thr	Trp	His	Leu	Leu	Asn	Gln
			770			775					780				
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785					790					795					800
Pro	Gly	Ala	Gln	Cys	Ala	Leu	Gly	Arg	Asp	His	Ser	Gly	Ser	Val	Val
				805					810					815	
Ser	Glu	Pro	Cys	Val	Cys	Ala	Asn	Trp	Asp	Phe	Glu	Cys	Asp	Tyr	Gly
			820					825					830		
Tyr	Glu	Arg	His	Gly	Glu	Ser	Gln	Cys	Val	Pro	Ala	Phe	Trp	Tyr	Asn
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Pro	Ala	Ser	Pro	Ser	Lys	Asp	Cys	Ser	Leu	Gly	Gln	Ser	Tyr	Leu	Asn
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Arg	Glu	Lys	Tyr	Thr	Ala	Lys	Ala	Gln	Met	Cys	Pro	Gly	Lys	Ala	Pro
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Ala	Gly	Ile	Phe	Gln	Val	Thr	Ala	Tyr	Ala	Glu	Asn	Asn	Leu	Gly	Ser
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Asp	Thr	Ala	Val	Leu	Phe	Leu	His	Val	Val	Cys	Pro	Val	Glu	His	Val
			980					985					990		
His	Leu	Arg	Val	Pro	Phe	Val	Ala	Ile	Arg	Asn	Lys	Glu	Val	Asn	Ile
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Ser	Ala	Val	Val	Tr											

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 Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
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 Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
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Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
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Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
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Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
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<213> Homo sapiens

<400> 4251
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480

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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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			20					25					30		
Pro	Asp	Ile	Thr	Lys	Arg	Tyr	Leu	Arg	Leu	Thr	Cys	Ala	Pro	Asp	Pro
			35				40					45			
Ser	Thr	Val	Arg	Pro	Val	Ala	Val	Leu	Lys	Lys	Ser	Leu	Cys	Met	Val
		50				55					60				
Lys	Cys	His	Trp	Lys	Glu	Lys	Gln	Asp	Tyr	Ala	Phe	Ala	Cys	Glu	Gln

65		70		75		80									
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			85						90					95	
Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
		100						105					110		
Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
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Ile	Leu	Tyr	Tyr	Ile	Phe	Thr	Lys	Asn	Ser	Gly	Asp	Ile	Thr	Thr	Glu
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Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
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Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
		180						185					190		
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
	195						200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
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Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235					240
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
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Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260						265					270		
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
	275						280					285			
Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290					295					300				
Ala	Ser	Gly	Ala	Ser	Ser	Pro	Pro	His	Leu	Cys	Val	Ser	Ser	Ser	Cys
305					310					315					320
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325						330					335	
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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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180
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240
gacgccttgg gcggttccgc ggtccctgtg cgcttcacc ttcaccaga aggacttctc
300
tggtgcagcc gctgcttctt cagccacggc ccaaaggat cggagcccc tggccgatcc
360

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480
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540
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1020
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1080
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<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25				30			
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35					40				45			
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
			50			55					60				
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70					75				80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90					95		
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
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<210> 4255
<211> 2205
<212> DNA
<213> Homo sapiens

<400> 4255
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120
aacaccaat ggcgtcctca gaatttattc tgggtccctc atgggacaag cattggatcc
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1140
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1200
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1380

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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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			20					25					30		
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50					55				60					
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65					70				75					80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
			85					90					95		
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
			100				105					110			
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115				120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
	130					135					140				
His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

145 150 155 160
 His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
 165 170 175
 Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
 180 185 190
 Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
 195 200 205
 Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
 210 215 220
 Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
 225 230 235 240
 Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
 245 250 255
 His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
 260 265 270
 Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
 275 280 285
 Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
 290 295 300
 Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
 305 310 315 320
 Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
 325 330 335
 Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
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 Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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 180
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 360
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 420
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 480
 gccacacat cactccacac ctctgaccaa agccccggga agcacatggt caccatggat
 540

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 600
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 780
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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

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Asp	Gln	Ser	Pro	Gly	Lys	His	Met	Val	Thr	Met	Asp	Gly	Val	Arg	Glu
			20						25				30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
			35						40				45		
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
			50				55				60				
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65					70					75				80	
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
				85					90					95	
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<210> 4259
<211> 377
<212> DNA
<213> Homo sapiens
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180
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240
gagaaggtgc tcttggcgtg gtctgggggg ccttcgtcca gctccatggt ctggcaggtt
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377

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<210> 4260
<211> 125
<212> PRT
<213> Homo sapiens
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<400> 4260

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      20           25           30
Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile
      35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
      50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
      65           70           75           80
Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
      85           90           95
Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
      100          105          110
Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly Ala
      115          120          125

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<210> 4261

<211> 592

<212> DNA

<213> Homo sapiens

<400> 4261

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180
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300
gatggcatta atttattggg tgtgttagaa gaagcaagat tttttggtat tgactcattg
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aaaatggcca atttaagccg ctgtaatctt gcacatgcaa atctttgctg tg
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<210> 4262

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4262

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<212> DNA

<213> Homo sapiens

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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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<212> DNA

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<400> 4265

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<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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<212> DNA

<213> Homo sapiens

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<400> 4268

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<210> 4270
 <211> 1084
 <212> PRT
 <213> Homo sapiens

<400> 4270

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Gln	Arg	Gly	Arg	Val	Leu	Pro	Pro	Pro	Ala	Pro	Leu	Asp	Thr	Thr	Asn
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Pro	Val	Tyr	Cys	Leu	Cys	Arg	Leu	Pro	Tyr	Asp	Val	Thr	Arg	Phe	Met
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Val	Glu	Glu	Glu	Lys	Ala	Ala	Asp	Ile	Asp	Leu	Tyr	His	Cys	Pro	Asn
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Cys	Glu	Val	Leu	His	Gly	Pro	Ser	Ile	Met	Lys	Lys	Arg	Arg	Gly	Ser
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Ser	Lys	Gly	His	Asp	Thr	His	Lys	Gly	Lys	Pro	Val	Lys	Thr	Gly	Ser
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Glu	Val	Ile	Leu	Lys	Pro	Thr	Gly	Asn	Gln	Leu	Thr	Val	Glu	Phe	Leu
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Glu	Glu	Asn	Ser	Phe	Ser	Val	Pro	Ile	Leu	Val	Leu	Lys	Lys	Asp	Gly
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Leu	Ser	Trp	Val	Glu	Asn	Leu	Trp	Pro	Glu	Glu	Cys	Val	Phe	Glu	Arg																														
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Pro	Asn	Val	Gln	Lys	Tyr	Cys	Leu	Met	Ser	Val	Arg	Asp	Ser	Tyr	Thr																														
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Lys	Gly	Glu	Lys	Ile	Phe	Tyr	Leu	Ile	Arg	Pro	Thr	Asn	Ala	Asn	Leu																														
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Gln	Thr	Leu	Phe	Ile	Pro	Thr	Gly	Trp	Ile	His	Ala	Val	Leu	Thr	Pro																														
														370															375															380	
Val	Asp	Cys	Leu	Ala	Phe	Gly	Gly	Asn	Phe	Leu	His	Ser	Leu	Asn	Ile																														
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Glu	Met	Gln	Leu	Lys	Ala	Tyr	Glu	Ile	Glu	Lys	Arg	Leu	Ser	Thr	Ala																														
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Pro	Ala	Ser	Tyr	Leu	Val	His	Gly	Gly	Lys	Ala	Leu	Asn	Leu	Ala	Phe																														
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Pro	Glu	Thr	Val	Arg	Thr	Val	Gln	Leu	Ile	Lys	Asp	Leu	Ala	Arg	Glu																														
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Ile	Arg	Leu	Val	Glu	Asp	Ile	Phe	Gln	Gln	Asn	Val	Gly	Lys	Thr	Ser																														
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Phe	Lys	Lys	Ala	Glu	Arg	Lys	Gly	Lys	Glu	Ser	Ser	Ala	Leu	Gly	Pro																														
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Ala	Gly	Gln	Leu	Ser	Tyr	Asn	Leu	Met	Asp	Thr	Tyr	Ser	His	Gln	Ala																														
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Leu	Lys	Thr	Gly	Ser	Phe	Gln	Lys	Ala	Lys	Phe	Asn	Ile	Thr	Gly	Ala																														
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Cys	Leu	Asn	Asp	Ser	Asp	Asp	Asp	Ser	Pro	Asp	Leu	Asp	Leu	Asp	Gly																														
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Val	Lys	Ser	Leu	Ser	Lys	Ser	Arg																																						

675	680	685
Lys Ala Thr Leu Ile Ile Arg Pro Lys Phe Pro Arg Lys Leu Pro Arg		
690	695	700
Ala Lys Pro Cys Ser Asp Pro Asn Arg Val Arg Glu Pro Gly Glu Val		
705	710	715
Glu Phe Asp Ile Glu Glu Asp Tyr Thr Thr Asp Glu Asp Met Val Glu		
725	730	735
Gly Val Glu Gly Lys Leu Gly Asn Gly Ser Gly Ala Gly Gly Ile Leu		
740	745	750
Asp Leu Leu Lys Ala Ser Arg Gln Val Gly Gly Pro Asp Tyr Ala Ala		
755	760	765
Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly		
770	775	780
Met Leu Cys Met Ala Asn Leu Gln Ser Ser Ser Ser Pro Ala Thr		
785	790	795
Ser Ser Leu Gln Ala Trp Trp Thr Gly Gly Gln Asp Arg Ser Ser Gly		
805	810	815
Ser Ser Ser Ser Gly Leu Gly Thr Val Ser Asn Ser Pro Ala Ser Gln		
820	825	830
Arg Thr Pro Gly Lys Arg Pro Ile Lys Arg Pro Ala Tyr Trp Arg Thr		
835	840	845
Glu Ser Glu Glu Glu Glu Glu Asn Ala Ser Leu Asp Glu Gln Asp Ser		
850	855	860
Leu Gly Ala Cys Phe Lys Asp Ala Glu Tyr Ile Tyr Pro Ser Leu Glu		
865	870	875
Ser Asp Asp Asp Asp Pro Ala Leu Lys Ser Arg Pro Lys Lys Lys Lys		
885	890	895
Asn Ser Asp Asp Ala Pro Trp Ser Pro Lys Ala Arg Val Thr Pro Thr		
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Leu Pro Lys Gln Asp Arg Pro Val Arg Glu Gly Thr Arg Val Ala Ser		
915	920	925
Ile Glu Thr Gly Leu Ala Ala Ala Ala Lys Leu Ala Gln Gln Glu		
930	935	940
Leu Gln Lys Ala Gln Lys Lys Lys Tyr Ile Lys Lys Lys Pro Leu Leu		
945	950	955
Lys Glu Val Glu Gln Pro Arg Pro Gln Asp Ser Asn Leu Ser Leu Thr		
965	970	975
Val Pro Ala Pro Thr Val Ala Ala Thr Pro Gln Leu Val Thr Ser Ser		
980	985	990
Ser Pro Leu Pro Pro Pro Glu Pro Lys Gln Glu Ala Leu Ser Gly Ser		
995	1000	1005
Leu Ala Asp His Glu Tyr Thr Ala Arg Pro Asn Ala Phe Gly Met Ala		
1010	1015	1020
Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr		
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Gln Arg Arg Pro Ser Val Gly Ser Gln Ser Asn Gln Ala Gly Gln Gly		
1045	1050	1055
Lys Arg Pro Lys Lys Gly Leu Ala Thr Ala Lys Gln Arg Leu Gly Arg		
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<210> 4271

<211> 588

<212> DNA

<213> Homo sapiens

<400> 4271

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120
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180
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240
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300
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360
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420
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480
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<210> 4272

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4272

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20          25          30
Asn Asn Phe Ser Glu Leu Phe His Leu Leu Ser Ser Arg Asn Cys Lys
35          40          45
Thr Arg Asn Leu Val Met Lys Leu Leu Leu Asn Met Ser Glu Asn Pro
50          55          60
Thr Ala Ala Arg Asp Met Ile Asn Met Lys Ala Leu Ala Ala Leu Lys
65          70          75          80
Leu Ile Phe Asn His Lys Glu Ala Lys Ala Asn Leu Val Ser Gly Val
85          90          95
Ala Ile Phe Ile Asn Ile Lys Glu His Ile Arg Lys Gly Ser Ile Val
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Val Asn Lys Tyr Gly His Thr Thr Asn Lys Ile Gly Phe Cys Leu Phe
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<210> 4273

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 4273

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120
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720
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1560

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 1920
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 1980
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<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg	35	40	45	
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg	50	55	60	
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu	65	70	75	80
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly	85	90	95	
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala	100	105	110	
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln	115	120	125	
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn	130	135	140	
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val	145	150	155	160
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu	165	170	175	
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser	180	185	190	
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val	195	200	205	
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser	210	215	220	
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe									

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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 780
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<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

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			20					25					30		
Gly	Lys	Ser	Ser	Leu	Val	Asn	Leu	Leu	Ser	Arg	Lys	Pro	Val	Ser	Ile
		35				40					45				
Val	Ser	Pro	Glu	Pro	Gly	Thr	Thr	Arg	Asp	Val	Leu	Glu	Thr	Pro	Val
	50					55				60					
Asp	Leu	Ala	Gly	Phe	Pro	Val	Leu	Leu	Ser	Asp	Thr	Ala	Gly	Leu	Arg

65					70					75					80
Glu	Gly	Val	Gly	Pro	Val	Glu	Gln	Glu	Gly	Val	Arg	Arg	Ala	Arg	Glu
				85					90					95	
Arg	Leu	Glu	Gln	Ala	Asp	Leu	Ile	Leu	Ala	Met	Leu	Asp	Ala	Ser	Asp
			100					105					110		
Leu	Ala	Ser	Pro	Ser	Ser	Cys	Asn	Phe	Leu	Ala	Thr	Val	Val	Ala	Ser
		115					120					125			
Val	Gly	Ala	Gln	Ser	Pro	Ser	Asp	Ser	Ser	Gln	Arg	Leu	Leu	Leu	Val
	130						135				140				
Leu	Asn	Lys	Ser	Asp	Leu	Leu	Ser	Pro	Glu	Gly	Pro	Gly	Pro	Gly	Pro
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Asp	Leu	Pro	Pro	His	Leu	Leu	Leu	Ser	Cys	Leu	Thr	Gly	Glu	Gly	Leu
				165					170					175	
Asp	Gly	Leu	Leu	Glu	Ala	Leu	Arg	Lys	Glu	Leu	Ala	Ala	Val	Cys	Gly
		180						185					190		
Asp	Pro	Ser	Thr	Asp	Pro	Pro	Leu	Leu	Thr	Arg	Ala	Arg	His	Gln	His
		195					200					205			
His	Leu	Gln	Gly	Cys	Leu	Asp	Ala	Leu	Gly	His	Tyr	Lys	Gln	Ser	Lys
	210					215					220				
Asp	Leu	Ala	Leu	Ala	Ala	Glu	Ala	Leu	Arg	Val	Ala	Arg	Gly	His	Leu
225					230					235					240
Thr	Arg	Leu	Thr	Gly	Gly	Gly	Gly	Thr	Glu	Glu	Ile	Leu	Asp	Ile	Ile
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Phe	Gln	Asp	Phe	Cys	Val	Gly	Lys								
			260												

<210> 4277
 <211> 1070
 <212> DNA
 <213> Homo sapiens

<400> 4277
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 180
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 480
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 540
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 660

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 900
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 960
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 1020
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 1070

<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

Met	Thr	Ala	Asp	Lys	Asp	Lys	Asp	Lys	Asp	Lys	Glu	Lys	Asp	Arg	Asp	1	5	10	15
Arg	Asp	Arg	Asp	Arg	Glu	Arg	Glu	Lys	Arg	Asp	Lys	Ala	Arg	Glu	Ser	20	25	30	
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys	35	40	45	
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn	50	55	60	
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro	65	70	75	80
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser	85	90	95	
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr	100	105	110	
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln	115	120	125	
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr	130	135	140	
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln	145	150	155	160
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys	165	170	175	
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu	180	185	190	
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu	195	200	205	
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn	210	215	220	
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala	225	230	235	240
Leu	Arg	Gly	Lys	Cys	Asn	Ile	Leu	His	Phe	Ser	Asp	Ile				245	250		

<210> 4279
<211> 1963
<212> DNA
<213> Homo sapiens

<400> 4279
cggccgctta cggaaaactc gctgttgga gttctggatg gcacagtcac gatgtacagt
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ctgagcgtac accagcagct gggcaagatg gtgggtgtgt ctgatgatgt caacgagtat
120
gcaatggccc tgagagacac cgaggacaag ctacgtcggg gccccaaagag gaggaaggac
180
atccttgacag agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac
300
tggctgctgc gcgtctgctt ggggaccatt gagcacggtg atcgacacagg gtctctcttt
360
gccttcatgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat
420
tactttggtc ccgtgcacag catggaggag ctcccaggct atgaagagac cctgaccgc
480
ctggctgcca ttctcgccaa acactttgcc gacgcacgca ttgtggggcac tgacatccga
540
gactactga tgcaggccct ggccagctac gtgtgctacc cacactccct gcgggctgtg
600ccgaggagca gcgtatcgcc atgggtgagga acctcctggc gccctatgag 660
cagcggccct gggcccagac caactggatc ctgggtcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
cccagcctcc agaagccctg cccttcacc ctgctgcagc agcacatggc ggacctccta
840
cagcagggtc ctgatgtggc acccagcttc ctcaacagcg tctcaatca gctcaactgg
900
gccttctctg aattcattgg catgatcaa gagatccagc aggctgctga gcgcctggag
960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
agcctgctgc gtgtcttgga gatgactatc acactggtgc ctgagatatt ccttgactgg
1080
accggccta cctctgagat gctgctgagg cgtcttgac agctgctaaa ccagggtgctg
1140
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcacctacg gctgctggc
1200
ctagagagcg tggaccacta tccattctg gtggcagtga cgggcatcct ggtgcagctc
1260
ctgggtgctg gcccagctc agagagagag caagccacat cagtgtcctt ggcagatccc
1320
tgcttccagc tacgtcaat atgctatctc ctgggacagc cagagcccc agcacctggc
1380
actgctctgc cagccccga ccggaagcgc ttctccctgc agagctatgc ggattatata
1440
agtccgatg agctggccca agtgggaacag atgctggcgc acctgacctc tgcattctgc
1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgcccctat ctgctatgcc
 1560
 caccocatct ctgctgtggt ccagccctgt ggccacaagt cctgcaaagc ctgtatcaac
 1620
 cagcacctga tgaacaacaa ggactgcttc ttctgcaaaa ccaccatcgt gtctgtagag
 1680
 gactgggaga agggagccaa tacgagtact acctcctcag ctgcctagcc ctcacagcct
 1740
 gtgccatcct ggaacctcca cctttgaacc cagagccagg ctggggcccta tttatgagct
 1800
 ccctttgccc ttctcctgta tcccacacca ccacatccaa cctccttgcc tgccctgtatc
 1860
 ctcattggtg ggagcccagc catggcccta attgtgctg agcttgactt tcagtcaggg
 1920
 ccacagttag cattaaatta ttattccata caaaaaaaaaaaa aaa
 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

Arg	Pro	Leu	Thr	Glu	Asn	Ser	Leu	Leu	Glu	Val	Leu	Asp	Gly	Thr	Val
1				5					10					15	
Met	Met	Tyr	Ser	Leu	Ser	Val	His	Gln	Gln	Leu	Gly	Lys	Met	Val	Gly
			20					25					30		
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35				40						45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50				55						60				
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65				70					75					80	
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
			85					90					95		
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100					105						110		
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
	115					120						125			
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
	130					135					140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145				150					155					160	
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
			165					170					175		
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
		180					185						190		
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
	195					200						205			
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
	210					215					220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225				230					235					240	
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu

245 250 255
 Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
 260 265 270
 Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
 275 280 285
 Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
 290 295 300
 Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
 305 310 315 320
 Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
 325 330 335
 Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
 340 345 350
 Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
 355 360 365
 Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
 370 375 380
 Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
 385 390 395 400
 Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
 405 410 415
 Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
 420 425 430
 Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
 435 440 445
 Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
 450 455 460
 Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
 465 470 475 480
 Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
 485 490 495
 Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
 500 505 510
 Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
 515 520 525
 Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
 530 535 540
 Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
 545 550 555 560
 Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
 565 570 575

<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

acgcgtgaag ggacagagct ggggccttgt caggagcccc acagttggcc aatggggccag
 60
 atgccccata gtctcagccc acctctcttc tgccatgagt cccctgattc tgtcctttga
 120
 gctgactctg agaggcagtg ggcttccccgc cagcacctcc ccctatcaca tttgtagggc
 180

tggtttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc
 240
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca tttcagcagg
 300
 tcaggcatgg atgcaggtgg aaatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tgggtctacag atgagtggtc tccagtctca aatgaggaga acaaataaggg aagtaggagc
 420
 tcaggggttct tgtgtgtctc ataggcagct gcctatccct gggtgataca gtcacctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4282
 Met Asn Ala Leu Thr Asp Pro Leu Ser Phe Pro Pro Ala Ser Met Pro
 1 5 10 15
 Asp Leu Leu Lys Cys Leu Trp Leu Pro Ala Ser Gln Pro Ala Pro Pro
 20 25 30
 Leu Ile Thr Met Gly Gly Val Lys Cys Gln Val Asp Met Arg Gly Cys
 35 40 45
 Leu Leu Thr Ser Gly Leu Ile Asn Gln Pro Tyr Lys Cys Asp Arg Gly
 50 55 60
 Arg Cys Trp Arg Glu Ala His Cys Leu Ser Glu Ser Ala Gln Arg Thr
 65 70 75 80
 Glu Ser Gly Asp Ser Trp Gln Lys Arg Gly Gly Leu Arg Leu Trp Gly
 85 90 95
 Ile Trp Pro Ile Gly Gln Leu Trp Gly Ser
 100 105

<210> 4283
 <211> 315
 <212> DNA
 <213> Homo sapiens

<400> 4283
 gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc
 60
 cgaccgtttt cctagaaggc ctaaccgctc aaacggggcag gggagggggg cgggcggccc
 120
 gggagaaacc gagtccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaacctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag
 240
 cctcattcct gccgcactc cgccaaactg ctgcacctgc ccagcgcagc ggatgcagcg
 300
 ctcccggccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1 5 10 15
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcaggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcaggggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcacc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcagggtctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggctcagagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
 ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

			20					25					30			
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu	
		35					40					45				
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala	
	50					55					60					
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp	
65				70						75					80	
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser	
			85						90					95		
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala							
			100				105									

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<210> 4287
<211> 868
<212> DNA
<213> Homo sapiens
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<400> 4287
cgagggcgcg actgcggggt tcttggtgct gaggacggac gccattggag ttcccgagaa
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120
cggaagcta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
180
tggttgaagg caacgactat gaagaattcg gtgcgtttgg tggctatggc accctcacca
240
gctttgacat ccatatcctc agagccttcg gaagcttggg tccaggcctt cgcattctat
300
cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggg ggaggcattg
360
cagctggatc cggaaacact tgccaatgag acggccgccc gtgctgcaa cgtagcccgc
420
gccgcgcct ccaaccgtgc ggctcgggccc gctgccgccc ctgcccgtac cgccttcagt
480
caggtggtcg ctagccaccg ggtggccacg ccgcaggtct caggagagga taccagccc
540
acgacctacg ccgccgaggc tcaggggccc acccctgagc cacccttgcc ttctccgcag
600
acctcccaga tgtagtcac cagtaagatg gctgcccccg aggtccggc aacctccgca
660
cagtcaccaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
720
gcattctctc aggtccgtg tgccaggag gtggacgcc accggcccag cacagccttc
780
ctgggccaga atgatgtctt cgatttcaact cagccggcag tgtcagtggc atggcttccc
840
gcgcccaga gacctgccc gccaaagag
868

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<210> 4288
<211> 240
<212> PRT
<213> Homo sapiens
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<400> 4288

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Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
100          105          110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
115          120          125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
130          135          140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
145          150          155          160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
165          170          175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
180          185          190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
195          200          205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
210          215          220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
225          230          235          240

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<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcttg tgcgggatat gagggagaaa tatgggagcc
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tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
120
caaagagcct tttgggaaca gttttcttat tgaacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagtcca catggcatcc tttgctctgt ccctgttctc ctgtctctgg
240
ctattcaggt tcccgtaggg atactgtcac cttgaataa tggagcttgc ggaagaccaa
300
gccctgtttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
353

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<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

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Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100          105          110
Leu

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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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nnaaatttgc caagccaaga gttaccccag gaagattctc ttttacatgg ccaattttca
 60
caagcagtca ctcccctagc ccatcatcac acagattatt caaagcccac cgatatctca
 120
tggagagaca cactttctca gaagtttgga tcctcagatc acttggagaa actatttaag
 180
atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagttca
 240
caattttcct ctgatcaaga aatagctcat ctgctgcctg aaaatgtgag tgcgctccca
 300
gctacggtgg cagttgcttc tccacatacc acctcggtca ctccaaagcc cgccaccctt
 360
ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
 420
gctccacctg taaccactgt cactttctag cctccacga cctcatttc tacagttttt
 480
acacgggctg tggtacact ccaagcaatg gctacaa
 517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

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Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```

			20					25					30			
Tyr	Ser	Lys	Pro	Thr	Asp	Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	
		35					40					45				
Phe	Gly	Ser	Ser	Asp	His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	
	50					55					60					
Ser	Ala	Gln	Leu	Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	
65					70					75					80	
Gln	Phe	Ser	Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	
				85					90					95		
Ser	Ala	Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	
			100					105					110			
Ala	Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr	
		115					120					125				
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	Val	
	130					135					140					
Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	Val	Phe	
145					150					155					160	
Thr	Arg	Ala	Val	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr					
				165					170							

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<210> 4293
<211> 547
<212> DNA
<213> Homo sapiens
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<400> 4293
gccggcgccc ccggcgcgga tgcctgctct gtgcctgtat ctgagatcat cgccgttgag
60
gaaacagacg ttcacgggaa acatcaaggc agtggaaaat ggcagaaaat ggaaaagcct
120
tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag
180
gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag
240
atgctggaga agctgacgtc cagaccaaag catttactgg tatttatcaa cccgtttgga
300
ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactgtt caccttagcc
360
tccatcacca ctgacatcat cgttactgaa catgctaata aggccaagga gactctgtat
420
gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc
480
gaggtgctgc acggtctgat tgggaggacg cagaggagcg ccgggggtcg ccagaaccac
540
ccccggg
547

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<210> 4294
<211> 182
<212> PRT
<213> Homo sapiens
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<400> 4294
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 Ile Ala Val Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
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 Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
 35 40 45
 Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
 50 55 60
 Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
 65 70 75 80
 Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
 85 90 95
 Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
 100 105 110
 Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
 115 120 125
 Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
 130 135 140
 Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
 145 150 155 160
 Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
 165 170 175
 Asp Gln Asn His Pro Arg
 180

<210> 4295
 <211> 431
 <212> DNA
 <213> Homo sapiens

<400> 4295
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 catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
 180
 gagaccccca ttgccacaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt
 240
 gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
 300
 gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc
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 420
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 431

<210> 4296
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 4296
 Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

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		20						25					30		
Cys	Trp	Thr	Thr	Ala	Met	Pro	Val	His	Val	His	Phe	Val	Tyr	Gly	Cys
		35					40					45			
Phe	Cys	Ala	Thr	Thr	Ala	Gly	Leu	Ser	Ile	Ala	Thr	Glu	Thr	Pro	Ile
	50					55					60				
Ala	His	Lys	Pro	Lys	Thr	Phe	Ala	Ile	Glu	Pro	Phe	Lys	Lys	Glu	Phe
65					70					75					80
Ala	Gly	Arg	Ala	Arg	Trp	Pro	Trp	Leu	Pro	Pro	Val	Ile	Pro	Ala	Leu
				85					90					95	
Trp	Lys	Ala	Glu	Ala	Gly	Gly	Glu	Val	Trp	Ser	Ser	Lys	Pro	Ala	Trp
		100						105					110		
Pro	Ala	Trp	Arg	Asn	Pro	Val	Ser	Pro	Ser	Gln	Ile	His	Val	Ile	Ile
		115					120						125		
Pro	Pro	Gln	Pro	Pro	Glu	Tyr	Leu	Gly	Leu						
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<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccatccttca tttcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgctgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacacccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttcctt gaaactggag gatgacagtt tcccaactca caaaaggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgccctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatcgctgg aaagcctgga gtccccaac caaggatgtg
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900

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acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggc
 1080
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 1140
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 1200
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 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgctcca tagaaaacaa
 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtgcc aagagattga taaataaata ttttttaca gataagatac aatttttgta
 1440
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 1500
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 1560
 gatttttttt aaaaaaatt tttgggtccg ttacctctaa tgaatttatt ctgaaatatg
 1620
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 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

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			20					25					30		
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
			35				40					45			
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50					55					60				
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65					70					75				80	
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
				85					90					95	
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
			100					105					110		
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
			115				120					125			
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
	130					135					140				
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
145					150					155				160	
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<210> 4299
<211> 988
<212> DNA
<213> Homo sapiens
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<400> 4299
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120
ccttgggaca ggcccccgag cacaaagtga ggctgtctat ggagttctgc agcacgtgca
180
cagcagacca tatatcactc agttccttct ggaggctcct cttccagcag ccactggctc
240
cctgcggtat ctcttcagtc tccggacagg cggctgtctc atgacctcgc tgcttcatct
300
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360
tctctgagat ctcatcctcc tgcgcttgga gcttctgata gatgaaggct acctcctccc
420
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480
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 600
 cccacttggtg ctctccttc tctccatggc ggctgtggg gctcagcacc tcttcaagct
 660
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 720
 ggaactcgaa agccttgggtc tgggcctgta actggctctt gagtgactca agttcacatc
 780
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 840
 tggctctccaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
 900
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 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

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Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20					25					30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
			35				40					45			
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50					55				60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70					75				80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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 120
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 180
 ggattgctgt tcagttctcg ctttgattca ggaatctag cccacgtgga gaaggtggaa
 240
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 300

gcctcttccc ctgactatga attcaacgtg tggacccgac cagactgtgc tgaaacggaa
360
tttgagaatg ggaacaggtc atggttctac ttcagcgtcc ggggaggaat gccaggaaaa
420
ctcatcaaga tcaacattat gaacatgaac aagcagagca agctgtattc ccagggcatg
480
gccccctttg tgcgcacact gcccacccgg ccacgctggg aacgcattcg agaccggccc
540
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600
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720
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780
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1020
aagctgattc ccatgttgaa ccccgatggt gtggtccggg gacactaccg cacagactca
1080
cgtggagtga atctgaaccg tcagtacctg aagcctgatg ccgtcctgca cccggccatc
1140
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1200
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1260
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1320
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1380
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1440
gttgcttact atgtggacct gcatggacat gtttccaaa ggggctgctt catgtacgga
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1620
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1680
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1740
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1800
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1860
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1920

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 1980
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 2040
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 2160
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 2280
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 2400
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 2429

<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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Gly	Asn	Leu	Ala	His	Val	Glu	Lys	Val	Glu	Ser	Leu	Ser	Ser	Asp	Gly
			20					25					30		
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35				40						45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
	50					55					60				
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
65				70					75					80	
Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
			85					90					95		
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
			100					105					110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120					125			
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
	130					135					140				
Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
145				150					155					160	
Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170					175		
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
	180							185					190		
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
	195						200					205			
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
	210					215					220				
Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

225						230					235					240
Gly	Lys	Arg	Ile	Phe	Phe	Leu	Ser	Ser	Arg	Val	His	Pro	Gly	Glu	Thr	
				245					250					255		
Pro	Ser	Ser	Phe	Val	Phe	Asn	Gly	Phe	Leu	Asp	Phe	Ile	Leu	Arg	Pro	
			260					265					270			
Asp	Asp	Pro	Arg	Ala	Gln	Thr	Leu	Arg	Arg	Leu	Phe	Val	Phe	Lys	Leu	
		275					280					285				
Ile	Pro	Met	Leu	Asn	Pro	Asp	Gly	Val	Val	Arg	Gly	His	Tyr	Arg	Thr	
	290					295					300					
Asp	Ser	Arg	Gly	Val	Asn	Leu	Asn	Arg	Gln	Tyr	Leu	Lys	Pro	Asp	Ala	
305					310					315					320	
Val	Leu	His	Pro	Ala	Ile	Tyr	Gly	Ala	Lys	Ala	Val	Leu	Leu	Tyr	His	
			325						330					335		
His	Val	His	Ser	Arg	Leu	Asn	Ser	Gln	Ser	Ser	Ser	Glu	His	Gln	Pro	
			340					345					350			
Ser	Ser	Cys	Leu	Pro	Pro	Asp	Ala	Pro	Val	Ser	Asp	Leu	Glu	Lys	Ala	
		355				360						365				
Asn	Asn	Leu	Gln	Asn	Glu	Ala	Gln	Cys	Gly	His	Ser	Ala	Asp	Arg	His	
	370					375					380					
Asn	Ala	Glu	Ala	Trp	Lys	Gln	Thr	Glu	Pro	Ala	Glu	Gln	Lys	Leu	Asn	
385					390					395					400	
Ser	Val	Trp	Ile	Met	Pro	Gln	Gln	Ser	Ala	Gly	Leu	Glu	Glu	Ser	Ala	
			405						410					415		
Pro	Asp	Thr	Ile	Pro	Pro	Lys	Glu	Ser	Gly	Val	Ala	Tyr	Tyr	Val	Asp	
			420					425					430			
Leu	His	Gly	His	Ala	Ser	Lys	Arg	Gly	Cys	Phe	Met	Tyr	Gly	Asn	Ser	
		435					440					445				
Phe	Ser	Asp	Glu	Ser	Thr	Gln	Val	Glu	Asn	Met	Leu	Tyr	Pro	Lys	Leu	
	450					455					460					
Ile	Ser	Leu	Asn	Ser	Ala	His	Phe	Asp	Phe	Gln	Gly	Cys	Asn	Phe	Ser	
465					470					475					480	
Glu	Lys	Asn	Met	Tyr	Ala	Arg	Asp	Arg	Arg	Asp	Gly	Gln	Ser	Lys	Glu	
			485						490					495		
Gly	Ser	Gly	Arg	Val	Ala	Ile	Tyr	Lys	Ala	Ser	Gly	Ile	Ile	His	Ser	
			500					505					510			
Tyr	Thr	Leu	Glu	Cys	Asn	Tyr	Asn	Thr	Gly	Arg	Ser	Val	Asn	Ser	Ile	
		515					520					525				
Pro	Ala	Ala	Cys	His	Asp	Asn	Gly	Arg	Ala	Ser	Pro	Pro	Pro	Pro	Pro	
	530					535					540					
Ala	Phe	Pro	Ser	Arg	Tyr	Thr	Val	Glu	Leu	Phe	Glu	Gln	Val	Gly	Arg	
545					550					555					560	
Ala	Met	Ala	Ile	Ala	Leu	Asp	Met	Ala	Glu	Cys	Asn	Pro	Trp	Pro		
			565													

